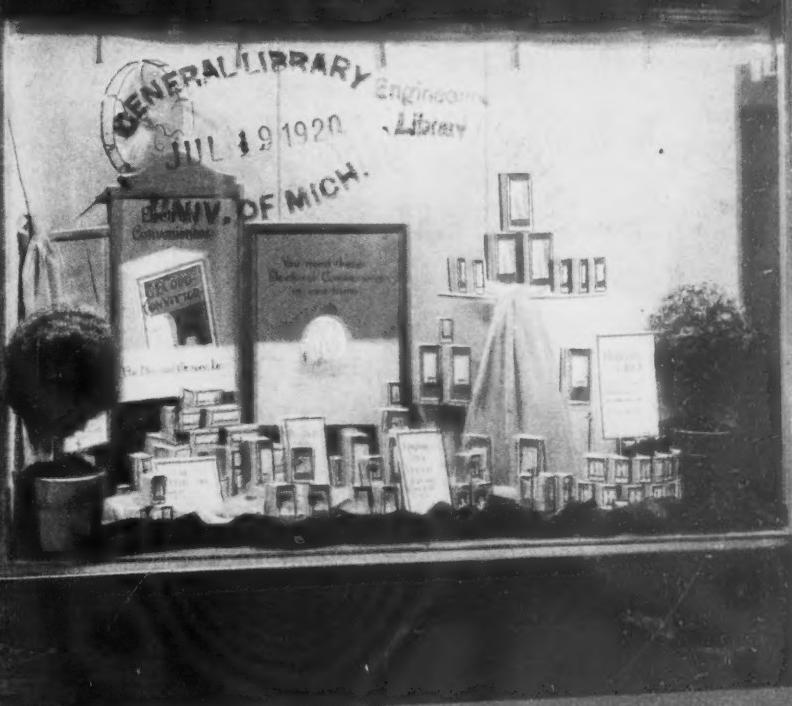


July 1920 Electrical Merchandising

McGraw-Hill Company



"They make them easy to sell!"

This is what contractor-dealers are saying about the blue and orange picture labels on the G-E merchandise specialties.

They are right—the labels do make the goods easy to sell and that is the one big purpose back of this powerful merchandising help that has been offered to G-E dealers.

G-E picture labels are powerful, silent salesmen—are they working for you?

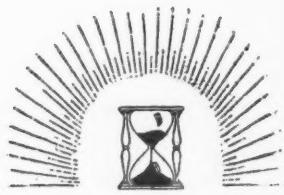


G-E

electric
conveniences

GENERAL ELECTRIC COMPANY

THIS advertisement, which appears in the July 10 issue of the Saturday Evening Post, is the fifth in the Edison Mazda Lamp series depicting the theme "Light is the Life of the Home."



More light for each year of life

ON every birthday another candle is added, for light is a symbol of progress; one new candle on each new cake—more light for each year of life.

From the first candle of youth to the twilight of life, the moments that mean most are etched in memory by the glow of a lamp.

Under its rays no one is old; for age is a matter of spirit, not years; and youth is a permanent guest in the home when good cheer and light are there.

BACKED by MAZDA Service, centered in the great Research Laboratories of the General Electric Company, and by forty years of continuous development, Edison MAZDA lamps represent the

latest and best in lighting. Each lamp is wrapped in a distinctive "His Only Rival" wrapper—and this as well as the name Edison MAZDA etched on each lamp is your assurance of lighting quality and service.

Use Edison MAZDA lamps for every lighting purpose

EDISON MAZDA LAMPS

EDISON LAMP WORKS OF GENERAL ELECTRIC COMPANY

Published monthly. Entered as second-class matter July 21, 1916, at the Post Office at New York, under the Act of March 3, 1879.



© E. L. W. of G. E. Co. The fifth of a series painted by NORMAN ROCKWELL for the Edison Lamp Works

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Electrical Merchandising

The Monthly Magazine of the Electrical Trade

Vol. 24

July, 1920

No. 1

Waking Up to Wireless

Robert F. Gowen, engineer of the De Forest Radio Company, in an address before the New York Electric Society, announced last night that from Ossining, N. Y., he had spoken fifteen hundred miles with a wireless telephone set, using slightly less power than is required to operate the domestic electric flatiron. Mr. Gowen read letters from operators all over the country regarding this wireless communication.

John C. Rieger of Buffalo said he had used Mr. Gowen's voice, received by wireless, to awaken his wife, who was asleep in the next room. H. C. Wheat of Gaffney, S. C., wrote that the phonograph music transmitted by the station at Ossining had been used as dance music in his home.—*New York Tribune*.

A NEW era in electrical communication for the general public is just opening up. Wireless amateurs—youthful and experimental—and operators of commercial stations of all sizes are going to be numbered as larger and larger buyers of electrical supplies in the future. They will buy this radio and electric equipment from their nearest electrical dealer, if he is equipped to supply it. The wise electrical dealer and jobber will be the one who prepares for this radio business, who establishes himself in advance in this field of undreamt possibilities. Already this new development is on its way. The electrical trade is "waking up to wireless!"



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By "Western Union" Across the Continent

O. H. CALDWELL,
Editor ELECTRICAL MERCHANDISING,
Hotel Huntington, Pasadena, Cal.

The Brooklyn Electrical Contractor-Dealers Association unanimously endorses your editorial "A Message to Central Station Executives," on page 221 of ELECTRICAL MERCHANDISING for May, and wishes to thank you and the McGraw-Hill Company for this powerful declaration for progress in the electrical industry.

HENRY F. WOLCOTT, Recording Secretary.

Brooklyn, N. Y.
May 20, 1920

Make Sure Your Banker Knows the Facts About the Electrical Business Today

YOUR banker is your best business friend. Get acquainted with him. And see that your bank officials become acquainted with your business and with the facts about the great electrical industry, of which your business is a part.

This list shows the estimated 1920 sales of the more "essential" lines of electrical merchandise and materials, the lines which must compete against hardware, dry goods, etc., for commercial credit. This business will be financed because it renders vital and necessary service. It is, in the language of the Federal Reserve Board, "essential."



Your bank must know these facts about the electrical business in order to do its share in financing your requirements.

"Essential" Electrical Merchandise

Estimated Sales for 1920

	Total Value	Sales per 1,000 of Population		Total Value	Sales per 1,000 of Population
Washing machines..	700,000	\$100,000,000	\$910	Pole-line material and hardware (for industrial plants only)	8,000,000 73
Vacuum cleaners...	800,000	40,000,000	364	Incandescent lamps, standard size	105,000,000 950
Fans	1,000,000	25,000,000	227	Dry batteries (75,000,000 cells)	30,000,000 273
Irons	2,500,000	17,500,000	159	Fuses, plug, cartridge, renewable, auto	9,000,000 82
Electric ranges....	65,000	13,500,000	123	Bells, push buttons, annunciators	5,000,000 45
Ironing machines..	60,000	10,000,000	91	Bell ringing transformers, etc.	2,500,000 23
Radiators, air heaters	300,000	3,600,000	33	Special Applications	
Heating pads, blankets	150,000	1,350,000	12	Portable drills, etc.....	1,550,000 14
Dish washers....	50,000	7,500,000	63	Air-compressor sets, motor-driven	2,000,000 18
Toasters	400,000	2,400,000	22	Intercommunicating telephones, hospital and factory calls	5,000,000 45
Sewing machines, electric	100,000	6,000,000	55	Farm-lighting plants(100,000)	55,000,000 500
Utility and sewing-machine motors..		5,000,000	45	Farm - lighting substations (transformers, arresters, etc.)	3,000,000 27
Miscellaneous heating appliances...	300,000	3,000,000	27	Farm apparatus, churns, cutters, milkers, etc.....	5,000,000 45
Fixtures, shades, reflectors...		245,000,000	2230	Pole-line material, farms, farm-lines	2,000,000 18
Flashlights and renewal batteries		20,000,000	182	Electric pumping outfits.....	7,000,000 64
Supplies				Motors, 100 hp. and under (not incl. fractional-hp. units)	100,000,000 910
Wire, lamp cord, etc.....		\$140,000,000	\$1273	Control app., starters, rheostats, for above.....	25,000,000 227
Wiring Devices, switches, sockets, plugs		85,000,000	773	Contracting sales, labor charges	206,000,000 1870
Conduit, rigid, flexible, surface and fittings.....		35,000,000	318	Repair and maintenance.....	45,000,000 410
Porcelain, knobs, tubes, cleats		15,000,000	136		



NOTE:—The above partial list includes only the more "essential" lines. For figures on the many additional lines of electrical merchandise and supplies see ELECTRICAL MERCHANDISING for March, 1920, which gives totals of all lines, aggregating estimated sales of about Two Billion Dollars' Worth of merchandise sales in 1920.

Electrical Merchandising

The Monthly Magazine of the Electrical Trade

With which is incorporated ELECTRICAL MERCHANDISE

Volume 24

July, 1920

Number 1

Keeping the Business House in Order

WHAT of the general business outlook? And where do the electrical trade, the wholesaler, retailer and contractor-dealer stand with the changing conditions which business as a whole is apparently now experiencing?

A restricted credit situation, delayed shipments, labor shortages and a tendency on the part of merchants to readjust their stocks on a basis of staple goods rather than style and fancy goods are factors which are responsible for a part of the uncertainty and doubt which exist today.

Yet certainly the basic economic conditions of America are sound if the country will produce more than it consumes.

The last two years we have been in a seller's market and the electrical trade has been learning how to sell. We are now approaching a buyer's market, which will require good business judgment not only along the lines of selling, advertising and the like, but more particularly will it require sound business judgment in reference to financial set-ups, handling of bank loans.

But whatever restrictive conditions overtake business as a whole, the electrical merchant and the electrical contractor-dealer are in a position peculiarly advantageous. They find themselves in the midst of a variety of opportunities waiting for their service and products. For example:

1. The labor-saving appliance field is hardly scratched. New prospects for electric washers, cleaners and cooking devices are being opened up by the hundreds of thousands as the knowledge of these appliances spreads. Local newspaper advertising will help bring in this business.

2. Convenience outlets are needed in thousands of homes. It is high time that we go after and wire up outlets for the thousands of appliances we have sold.

3. Industrial lighting is another tremendous field. Here the electrical man can speed production and make labor more effective in hundreds of plants.

4. Motor applications and motor drive are needed in one factory after another right in your own town! And along with motor installations comes the call for maintenance service!

5. There are new and appropriate merchandise lines for the electrical dealer to add, reducing his overhead. Electrical automobile accessories and wireless goods are examples.

6. Farm lighting outfits. The farmers have prospered, these past months and years, and will be less affected by business conditions than any other class. Remember that farmers buy two-fifths of all the automobiles sold.

7. Refixturing. Bring the homes up to date with modern "lighting furniture!"

8. Reinspections. In many communities old wiring jobs are being condemned by local inspection bureaus and new work is being ordered.

9. Unwired houses to be equipped. The unwired houses reached by electric service lines number 5,000,000, while the total number of unwired houses on the American continent is 14,000,000.

This splendid array of business opportunities right now awaiting the electrical man proves the tremendous advantage of his position over that of any other business class.

However, the electrical man as a business man has the same fundamental business problems that affect all businesses, and, no matter how great the selling opportunities, unless his business house is kept in order the splendid opportunities which the electrical trade offers cannot save the careless man from paying the price of poor business management.

WTB.

Make Your Banker a Partner in Financing Your Business

If, as an Electrical Contractor or Dealer, You Wish to Establish a Permanent Credit Relationship with Your Banker, Remember that He Must Analyze Your Financial Statement, Estimate You as a Moral Risk and Take the Credit Measurements of Your Business Before You Win His Dollars

By W. Y. CONRAD

Vice-President, Irving National Bank, New York

DOES the retail electrical trade know how to finance its business in a period of tightening credits? In the spirited bidding for credit for the coming twelve months bankers may be expected to favor concerns which are engaged in making or selling essential commodities and which can show satisfactory re-

turns over a reasonable period of time. Therefore, the electrical contractor-dealer who wants to establish a permanent and sound credit with his banker in order to obtain money when necessary to discount his bills, to finance his installment sales and to develop new business must know how to present his claim intelligently

and forcefully. To help him do this ELECTRICAL MERCHANDISING offers below the directions laid down by a banker himself, W. Y. Conrad, vice-president Irving National Bank, New York City, in an address at the twenty-first annual meeting of the National Electrical Credit Association, June 18, at New York.—EDITOR.

Confidence is the twin brother of success. I take an optimistic and a conservative point of view in business. I believe it is wise in times of depression to prepare for success and in times of success to prepare for more success. A wise business man looks not alone on the bright side of things nor yet on the dark, but seeing both sides clearly he weighs each situation carefully and is prepared. That is the keynote I want to strike in explaining how a banker analyzes a customer's financial statement, how he estimates the moral risk and the method he employs to measure out credit.

ANALYZING THE CUSTOMER'S FINANCIAL STATEMENT

Many conditions must be satisfied in determining values. One of the first and most important features in connection with the analysis of a statement—in determining the real value of assets and liabilities—is the character of the men composing the management. If the man who submits his statement has not integrity it will be worthless as a basis for credit. It would prove the undoing of a credit man if he accepted a schedule without proof, although he knew the applicant's character. Even the collateral loan, if not backed by character, may be supported by stolen, over-issued, raised or washed securities and results in a loss to the bank.

Figures mean nothing unless one is thoroughly satisfied that the statement has been ably and honestly compiled. It has become quite a common custom for a bank to request audited statements from its customers, and it is most essential that the auditor or firm of certified accountants check to your satisfaction as to their ability and standing as accountants.

In analyzing a statement, the liquidity is one of the important features to be determined. A banker must satisfy himself regarding the personnel, their knowledge of the business, their ability to manage and finance and conserve the assets of the concern and their previous record—whether their line of trade is stable and firm or subject to sudden or violent changes. He must satisfy himself that the statement contains sufficient quick assets to liquidate the concern's current liabilities and to determine whether the assets are really quick or not.

Many questions enter the banker's mind. I will try to mention as briefly as possible a few of the questions which are to be answered.

BILLS RECEIVABLE

The bills receivable item may be used to cover up slow items—notes given by stockholders for unpaid stock subscription in order that capital account upon the other side could be entered as "paid in full," and at times is likely to contain notes other than strictly business paper. Also, old debts are renewed in this form from time to time. It is well to call for an analysis of this item.

ACCOUNTS RECEIVABLE

Accounts receivable should consist of good, live accounts. The amount should be in proper ratio to total annual sales and to the terms upon which goods are sold. Further, the banker will ascertain whether any of the accounts have been assigned or pledged for loans outside the bank. In case of concerns with allied accounts, it is well to ask for a division to show the amount due from the subsidiary corporation—allied, controlled or affiliated interests. There are various other questions that can justly be applied to this account; for example, the amount for merchandise on consignment, cash advances, whether secured or unsecured, and commissions due and payable. Other items of a more or less slow character are sometimes injected.

INVENTORY

Next comes the inventory. One of the first questions that enters the mind of the banker is: "How have the values been computed?" In the banker's opinion it should be valued at either cost or market prices, whichever is lower. In many instances it is advisable to ask for a division, setting forth the amount of finished merchandise, merchandise in process, raw materials, supplies, as to the amount of reserve or allowance for merchandise of an unsalable character.

The banker should also be advised as to the amount held in trust receipts and any amount held under consignment included in inventory, amount pledged as collateral for loans or advances in amount that may have been priced at more than cost.

The amount of unfilled orders is also illuminating in

many instances. Character of merchandise is important in determining whether it is really a quick asset. If the inventory seems large, it should be carefully gone into.

PLANT AND REAL ESTATE

The invested or fixed assets include plant, real estate, machinery, fixtures and equipment, investments, patents, good will and various other items.

Plant and real estate should receive careful analysis as to value under liquidation. Records should be searched for encumbrances. The banker wants to ascertain in whose name the property stands. At times real estate has been injected into a statement, when the property was in the name of the wife of the applicant for credit. Paid-up life insurance is sometimes found not payable to the estate, or sums which would become available only upon the division of an estate—not to be divided until the decease of other persons.

Machinery will at times be grouped in this item, and the banker will want to determine if it had been valued and marked down conservatively.

The investment account sometimes consists of bonds, stocks and mortgages which may be all of quick market value or may be of little value. An itemized statement of this item is one way to determine proper values.

Patents and trade-marks are seldom counted of value in determining quick assets.

Good will may be utterly worthless or may be of surprising value. From the banker's point of view it should be eliminated from the statement. It should not be merged with other items where it will be counted as of fixed value.

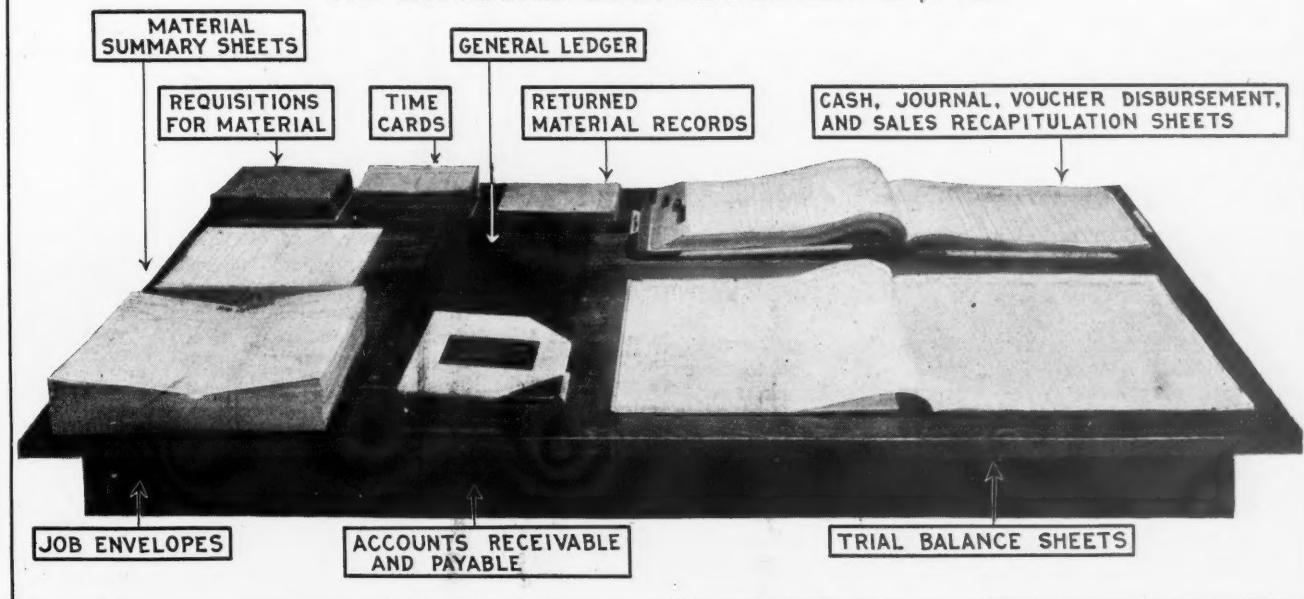
BILLS PAYABLE

Going to the liability side of the ledger we take up bills payable. This item should be separated, showing the amount owing the banks, the amount owing to merchandise creditors and the amount owing to note brokers, if any. In this connection it is the opinion of the banker that a concern should keep its bank lines well open when borrowing largely in the open market. Many concerns have erred in this respect and when a tight money market was encountered, found themselves overextended, unable to meet their maturing street paper, with the result that the concern was thrown in the hands of a receiver or became bankrupt.

ACCOUNTS PAYABLE

Accounts payable should be reduced to the minimum when bills payable are large in the aggregate. Money due stockholders and deposits of money by officers or employees are usually in the same class as bills payable and are payable on demand. It is preferable that these items should be eliminated by conservative houses which have good-sized debts in other ways. There have been times when this item has been regarded as a menace to safe financing. At

The New Standard Accounting System for Electrical Contractors and Dealers



"Stop, Look, and Listen"

Every time you read those three words at a railroad crossing, you obey. But what do you do every time you hear the three words "standard accounting system"? Rush on, and forget them! Some day your banker will ask you, "What sort of books do you keep?" and if you can not show him that you have installed sound accounting methods, your application for a loan (and perhaps your business) will soon be as dead as the man who fails to heed the warning bell and signboard at the railroad crossing.

—The Editors

Planning to Spend \$25,000 for Better Accounting



Convinced of the urgent need for establishing better accounting methods in the retail electrical trade, the National Electrical Credit Association is considering the advisability of raising and spending \$25,000 to promote the sale and installation of the standard accounting system now sold by the National Association of Electrical Contractors and Dealers. At the twenty-first annual meeting of the credit association, June 18, at New York, a committee was appointed to confer with a similar committee of the

contractors and dealers' association. Any action taken will be announced later. Addresses on "The Trend of the Times," by J. H. Pardee, president of the J. G. White Management Corporation; on "Constructive Credit Service," by W. E. Rice, of the Western Electric Company, and on "Credit as the Banker Sees It," by W. Y. Conrad, vice-president of the Irving National Bank, New York, were the features of a two days' program. The merry-making took the form of a golf match, a shore dinner and a boat ride.

times provision has been made to subordinate moneys of this character from the regular current debt. This should be definitely ascertained.

MORTGAGES

A bank man would want to know when the mortgage is due, to satisfy himself that proper value is back of this mortgage and to know just what the mortgage actually covers—whether it encroaches on the quick assets, and if so leaves the banker or merchandise creditor the remnants of the assets, depending on state laws. Also, a mortgage may be executed against a plant and bonds issued against the same, and, not finding a ready market for the bonds, they may be held in the treasury to be pledged for loans while the applicant gives a plain note protecting one creditor at the risk of another without the latter's knowledge.

PROFIT, LOSS, CAPITAL

It is also very desirable to obtain a complete profit and loss statement to establish the cost of doing business and the profits resulting.

Capital is represented in various forms, usually preferred and common stocks, surplus, undivided profits, net worth. Capital stock may imply merely one issue of stock, may represent full face value of money paid in, may be partly issued for good will or patents, may represent earnings converted into capital stock, may be divided into several issues, terms: preferred, first, second and common.

Such stocks may carry distinct rights and privileges, may represent real features or may represent good-will stock, have priority as to dividend only, contain provisions for requirements or conversion into other issues, may be cumulative as to dividends, may be issued to refinance an overburdened proposition or may be put out to take up a mortgage. Common stock frequently represents good will, although it may represent value. Earnings should be allowed to accumulate until the face of this issue represents new money.

SURPLUS

Surplus may represent cash paid in at the start, but preferably should represent absolute earnings. Net worth should mean the real investment. There are times when this item is padded by the injection of good will or patents into the statement. When this feature is suspected a subdivision should be asked for.

CONTINGENT RESOURCES

Contingent resources has much to do with the credit risk. It may take the form of individual indorsement or guarantees, may be represented by the outside means of firm or may take the form of life insurance payable to the bor-

rower's estate or firm. Indorsements need to be carefully analyzed. Guard against chronic indorsers, because of their frequent inability to pay anything.

CONTINGENT LIABILITY

If contingent liability should exist, no statement is complete which does not give it. It may be indorsements for allied concerns and this may be larger than its direct debt. It may be indorsements on trade paper discounted at bank or sold in the open market. It may take the form of surety, and should this be large it would be a menace to desired and actual credit. It may take the form of the individual debts of the members of the firm.

ESTIMATING THE MORAL RISK

Character as applied to the extension of credit is the vitalizing factor in the contract. Its influence in illuminating commercial transactions counts always in determining risk. We cannot afford to gamble on character in the credit risk. Every effort should be made to know in advance.

I have combed the dictionary for a definition of "character," but the definitions found seem to miss the point. Left to myself, I define character as that analyzing vital factor in the credit risk entering into all commercial transactions known as integrity, that hidden element which may not be measured or touched or seen, and that may not be thrown into the scale and balanced as merchandise or appraised along with other tangible assets. It is the silent, controlling force wrapped within the contract. If counts for more than gift or talent or trained ability, more than written pledge or bond with seal affixed. It is deep-rooted integrity, of close kin to honor. It is moral quality which stands for honesty in all trade transactions.

Reputation and character are not to be confused. Reputation may be put on and laid off as a garment. Character is what you are.

The four fundamental principals of character on which to judge man are: First, health—able to work; second, industry—willing to work; third, persistency—continuity of work, and fourth, reliability—dependability of work.

The merchandise contract for goods purchased should be as sacred as any form of obligation known to the commercial world. The borrower may be in the class of customers who have contracted bad habits. You may discover on calling for a record of his payments through the years you have been selling him that in proportion as the moral hazard has become clouded his payments have been less prompt.

Every credit man will have his examples—some will heed the red signals and order the account closed, others will hold up decision and take their loss later on. No true analysis of credits can be made without taking

into the account the moral hazard. It will not always be a determining factor, but it will need to be given careful consideration.

MEASURING OUT CREDIT

There are many angles from which to view the subject of credit, when deciding how much a concern shall receive. Proper appraisement of the value of the management and co-ordinate functioning contribute largely to the worth of any business, for a great change in management value can occur over night. Knowledge is one of the first requisites in the handling of a successful business or in a business life. Personality is also a factor. In either business or social fields of endeavor we cannot succeed without friends. "Pep," in my opinion, plays an important part. Let us analyze "pep." It is happiness in the heart, energy in the body, determination in the soul and invincible courage in the will.

The bank credit man who would apply rigid test to all applications for credit is hopeless. He will fail to recognize that the commercial bank which is unwilling to take the minimum risk upon concerns of character and capacity with modest resources but with a good chance of success is not meeting its functions as a commercial bank, nor properly taking care of the investments of its stockholders. Rigidity in extending credit has no place in a bank which claims to be a commercial institution. No two credit risks in ten thousand will be more alike than two individuals. If two statements submitted should seem equally well balanced, "the setting" is sure to be dissimilar. It is beyond the banker's privilege to know in advance that the man of today of small means will not be one of his valued accounts a few years hence.

Credit extended to the customer just starting in business will of course need to be based upon the showing he will make as to character and proved ability in his chosen line. If he has access to sufficient capital to make it a bankable proposition the banker will give him a careful hearing. If

the fundamentals are of a favorable character he will try him out.

Let me emphasize the importance of analyzing the organization. One of the chief elements in granting credit—one which has been almost lost sight of—is the fact that assets may fade away over night, but the organization may not. With this fundamental viewpoint in mind, modern bankers not alone study the assets and make a careful appraisal of the plant but they study the potential forces for organization—they study the man equation, and as a result of this study they grant the line.

I predict that the future banker is going to study the organization as much, if not more, than the assets. On the other hand, some of the greatest losses occurring to bankers have happened when they have granted credit because of the splendid balance shown and failed to realize that the borrower was a one-man organization and not an organization in which there was a fair division of authority and responsibility. A study of this situation divulges the fact that most of the losses sustained today are due to the fact that there was not an organization effort back of the proposition. When there has been a rounded out organization back of a legitimate and practical proposition in most cases the borrower has come through in splendid shape.

The one-man proposition or a corporation dominated by the president or some other important executive is another feature which sometimes militates against the credit risk. Where the one-man spirit predominates there is an element of fear and timidity very apparent in all the executive heads. An air of fear permeates the entire place and results in making all of the "coming men" under men in their attitude, obeying orders strictly, not reaching out and developing.

The banker looks the borrower clear through; he takes a look down into his soul; he determines whether he is honest and has grit; he looks back into his brain and makes sure that he has sense and wisdom. He measures his man and then measures out credit to fit the man.

Cashing in on the Radio Supply Business



Convinced of the market for radio supplies of all kinds, the National Radio Supply Company, 808 Ninth Street, N. W., Washington, D. C., maintains a heavy stock of radio equipment and accessories. George W. Parezo is president of the company. Not

every electrical dealer, of course, would deem it advisable to carry a wireless stock as heavy as this, but a smaller and carefully chosen quantity of radio equipment should yield a sound profit to the dealer.

When You Need Credit Buy It at the Money Store

A Bank Isn't a Place to Keep Money in Cold Storage—It Is a Store Where Credit and Money Are Sold—Keep Your Banker in Touch with Your Business, and Then Your Way Will Be Easier When You Need Money.

By W. A. BAYARD



"What do you want this money for?" the bank official asked.

The dealer frankly told him just the situation.
"How much have you on deposit here, right now?"

"I'm down to about \$500."
"How much do you want?"

"I ought to have \$2,000 to make me easy." The dealer's statement showed an ample security in stock and accounts receivable to cover a loan of that amount. He was entitled to the money and he got it. It took the pressure off. It stopped him worrying. It was worth the interest many times.

THERE NEVER WAS a time when a man needed so many dollars to do business with as he does now; for it takes three dollars to buy an old-time dollar's worth of goods. It takes three times as many dollars to do a job. It takes three times as many dollars for the simple reason that a dollar today looks like a dollar, but it isn't a dollar. It has about the buying value of 30 cents. To do our business, therefore, we must have more dollars. The electrical contractor, the man who operates the electric shop, and every other business man must have more dollars nowadays. Where shall we get them? We think that this article points the way toward a solution of this problem.—THE EDITOR.

I WENT the other day and talked to a banker in a small eastern city. He was just one of a number of bank presidents and cashiers that I have dropped in on in the last few weeks to talk about this thing. I put the question bluntly. "Mr. Walker," I said, "why is it that the average small business man is afraid of the banker?"

He looked at me, just a bit surprised, but he met it fairly. He squinted up his eyes a minute. Then he said: "Well, I'll tell you why, though I don't believe that it is quite as bad, any more, as you have put it.

The trouble has been inherited from the old days when the banker thought he was a little tin god. The bank has changed since then, but the public has never forgotten.

"Thirty or forty years ago," he continued, "the banker was usually a rich old man who had made a lot of money and become a capitalist in the community. He had an exaggerated idea of his own importance. He felt his power as a possessor of something that other men were seeking. He assumed an air of great dignity and wisdom. It was so fearsome and impressive that people used to al-

most apologize for bringing money to his bank, and he seemed to enjoy turning them down promptly when they applied for accommodation.

"But though that may have been old-fashioned banking, it wasn't business, and business men realized it. So business men began to go into the banking game and compete with the old-time banks and competition has resulted, as it always does, in a *spirit of service*, a competition of service, that has put the bank into its proper business of furnishing money to business enterprises on a business basis of mutual benefit without apologies from either side."

And there you have it in a word. Most people think that the bank is just a place to keep your money in. But the bank can't make a cent by keeping your money. It can only earn profits to pay its dividends to stockholders and interest to depositors by lending out this money that you and

other people leave there. So the bank is eager to lend money. That is its real business. The more it lends, the more it makes.

One of the best examples of this awakened attitude of the banker came, they say, in Chicago after the fire. Lyman J. Gage, later Secretary of the Treasury, was then head of the First National Bank of Chicago. Hundreds of small business men were burned out and up against it. They came to the banks for help. There was no other place to go. And Mr. Gage considered it the function of the bank to serve the people at a time like this. He went the limit. He bet on character, and took big moral risks without which adequate help could not have been given.

As a result he made friends for that bank that were real friends.

THE "HUMAN BANK" THAT HELPED BUSINESS MEN

People came to the First National because they heard that the First National was a "human" bank, a bank with a heart eager to help. And they found assistance and they stayed and out of their prosperity, which Gage had helped so manfully, they built up the First National to be one of the biggest, strongest financial institutions in the land.

After all, that is the function of the bank. That is the banker's one great opportunity, and every business man should understand it clearly. The physician's livelihood is made by serving people who become ill and need his help to get well again. The bank is organized to help the business that is *not ill*, but in need of strength. And strength for a business usually means money. The bank provides it when it is needed and deserved. And when a man needs money he should go down to his bank as freely and as frankly as he calls upon his doctor when he feels that he needs medicine.

"THE BANK IS THE STORE WHERE THEY SELL MONEY"

Money, you see, is just a commodity and the bank is just the store where they sell it. It is one kind of material that the electrical contractor must put into every job. It is one kind of stock that every electrical merchant must have on hand in his electric store. Into a wiring job there go three things—labor, material and money. When the order is received the contractor proceeds to make his preparations for

the work. If all the material he needs is not on hand, he buys it from his jobber or the manufacturer on whom he relies for material. If the work will require more labor than he can provide or spare out of his regular force he hires more men. If it will require more money to buy material to pay the labor or for expenses for his job than he can provide out of his regular bank account, or more than he can spare, what should he do? Why, he should go to the bank that he relies upon for money and order what he needs to do this job. He should hire the money he needs just as he hires more labor, and go ahead.

In the same way, in the electric shop, when customers come in and buy goods out of stock, more must be ordered, more must be bought. If these goods are sold on credit, as they largely will be, this becomes sort of a double transaction of selling them goods and renting them money out of your bank account at the same time. If washing machines, vacuum cleaners and other large appliances are sold on easy payments, this may mean renting your money for a long time. It will reduce your stock of money. You will have to order more, to keep your store in shape to do business. And the place to order it is at the bank.

THE BANKER IS GOING TO ASK QUESTIONS

That is the way to look at this matter of money. For money is not mysterious. It is not an intangible hard-to-get something that only the rich man and the banker can lay hold of. Money is really just a simple commodity that is bought and sold along with labor and material. And in these times, when so much more of it goes into every job than was required before the war, a man must know how to buy money and where to go.

When you go to the banker for money, of course he is going to ask you some questions. But this is only the same natural thing that the jobber and the manufacturer have done when you have opened your accounts with them. You have to establish credit to buy material. You have to establish credit to buy money. The jobber or manufacturer or the banker who sells you must feel secure, and security is based on just four things—real estate, indorsement or goods and character. But the last is really first—for as J. P.

Morgan, Sr., used to say, "*Credit depends on character more than on capital.*" The most important consideration in rating a man for credit is personal character—is he honest? Does he work hard and consistently? Is he enterprising? Does he keep his promises? Does he make money? Is he young enough so that if he does fall down he can come back? So they measure you two ways when you come in—just as the manufacturer does, or the jobber who sells you goods. They measure you first for character and ability, then for capital.

As to character, you needn't worry. You are what you are and the banker knows it. It is his business to know. He observes. He finds out. He knows how his depositors are getting on—the men whom he expects to come to him for help from time to time. He knows their reputation and their standing. Your character, you'll find, is pretty well known when you go calling at the bank.

A STATEMENT OF YOUR ASSETS AND LIABILITIES

Then as to capital—this is a simpler matter. A simple statement tells the story. What merchandise have you on hand, what accounts outstanding due from customers, what work in process not yet billed, what bills receivable, what cash on hand and in the bank, what real estate, what fixtures? Then of course, against this, what do you owe for merchandise and other liabilities? This statement tells the story, but you need not fear to tell it freely and frankly. The bank does not ask that you be rich—just that you are in good financial health—not insolvent—making money and not losing it—and with evidence of the ability to succeed. But it is character that counts the most, the man more than the figures, as these little stories show.

I know one man who not so long ago opened an electric store. His capital, he thought, was ample to provide a stock and carry on his business. But the man is apt to underestimate these things. He had arranged to finance time-payment selling at the local Morris Plan Bank. He found one day, however, that his collections were slow, his bank balance was low and there were bills that should be paid. Most men at a time like this begin to worry and stew. They try to get their money in and stave off the bills they owe,

but in the meantime old Dull Care is riding them around. This chap had sense enough to realize what the bank was for. He took a little statement of his assets with him and called on the cashier of his bank. He went right in and said: "I want some money."

The cashier knew him just as your banker knows you when you drop in on him. He knew that he had a store and what it looked like. He knew that he had a good name in the town. He was "getting along."

"What do you want this money for?" he asked him.

He told him frankly just the situation.

"How much have you on deposit here, right now?" the cashier asked.

"I'm down to about \$500."

"How much do you want?"

"I ought to have \$2,000 to make me easy."

His statement showed an ample security in stock and accounts receivable to cover a loan of that amount. He was entitled to the money and he got it. It took the pressure off. It stopped him worrying. It was worth the interest many times.

SWINGING THE BIGGER JOB

Another case I know of where a contractor was working on a bigger job than he was really able to swing comfortably. He had to buy a lot of stuff. He had to take on extra labor. He thought that his first payment would come in before he would have to pay for part of it. But to play safe he went down to his bank one day and told them all about it, gave them warning that he might be coming for a bit of help, if he had guessed too optimistically. And as is usual these days, deliveries were slow, work was held up and due days came and he had not been able to collect. So he went back to the bank and said: "Here I am. I've got to have some help."

"How much?" said the bank.

"Well," he replied, "I guess that \$1,750 would take the pressure off. But it might not keep it off. My first payment on this job will be close to \$4,000. Why not let me have \$3,000 as a working capital for the job. It will make it much easier for me to do my work and I'll save the interest many times."

The bank had the money. The bank's business was to lend it. He got it.

I know of another man who had

CR-9		Federal Reserve Bank of New York Statement Form FIRM	
STATEMENT OF..... BUSINESS..... To..... The Lincoln National.....		BANK OF..... City of New York.....	
We make the following statement of all the assets and liabilities of our firm at the close of business on..... and give other material information for the purpose of obtaining advances on notes and bills bearing our signature or indorsement, and for obtaining credit generally on present and future applications.			
(PLEASE ANSWER ALL QUESTIONS AND FILL IN ALL BLANKS)			
ASSETS		LIABILITIES	
Cash on Hand and in Banks.....	2 800.00	Accounts Payable.....	2 500.00
Accounts Receivable.....	8 000.00	Notes Payable to Banks.....	4 000.00
Notes Receivable.....	200.00	Notes Payable to Others.....	1 000.00
Merchandise.....	5 000.00	Deposits.....	
Other Quick Assets (Itemize). Lib. Bonds.....	500.00	Other Current Liabilities (Itemize).....	200.00
Quick Assets.....	16 500.00	Current Liabilities.....	7 700.00
Land and Buildings.....	15 000.00	Mortgages.....	3 000.00
Machinery and Fixtures.....	1 000.00	Other Deferred Liabilities (Itemize).....	
Other Assets (Itemize).....		Current and Deferred Liabilities.....	500.00
Prepaid Insurance.....	60.00	Net Worth.....	21 360.00
TOTAL.....		TOTAL.....	
32 560.00		32 560.00	
Contingent Liability. As indorser \$500.00.....			
As guarantor \$..... No accounts or notes receivable have been sold, discounted or assigned with our indorsement or guarantee except as follows:.....			
Accounts and Notes Payable. If any are past due state amount and circumstances.....			
Sales and Profits Last Fiscal Year. Net sales \$.....			
Net profits \$.....			
Accounts and Notes Receivable. State amount and circumstances			
(a) If any past due or doubtful,.....			
(b) If any are pledged,.....			
(c) If any amounts are due from members of the firm, employees, branches or similar sources,.....			
Mortgages and Other Liens. State due date of mortgages and on what assets a lien.....			
Is mortgage a lien on any current assets?.....			
If any other liens on assets, state amount and circumstances.....			
Reserves and Depreciation. State what provision is made.....			
We hereby certify that the foregoing figures are taken from the books of our firm and that they and the statements contained on both sides of this sheet are true and give a correct showing of our financial condition.			
Signed this.....day of.....191.....		Firm Name.....	
(OVER)		By.....	
		Member of Firm	

When asking for credit at a bank, the electrical contractor or dealer will be required to make out a statement showing the financial condition of his business. The specimen form here shown is the statement adopted by the Federal Reserve Bank of New York and used by all the member banks. Notice that the form is filled in as if the requested loan (Notes Payable to Banks.....\$4,000) had actually been granted to the would-be borrower. This procedure is followed in order to line up the assets and liabilities as they would appear if the loan were made, and so that the Federal Reserve Bank may be guided in rediscounting the commercial paper of the borrower, if called upon to do so. All items under assets and liabilities must bulk up in the right proportions, in the mind of the banker, if the application is to be granted. The partial figures here filled in are illustrative only, and cover the application of a small firm.

a good business. He was a contractor too, with a prosperous store and a growing merchandising business. He had been comfortably fixed financially and had discounted his bills right along. But dollars have been shrinking so that it has needed steadily more and more cash to keep his stock up and support his business. Within the last few months collections have slowed up, as everybody knows, and it has pulled his cash resources way down, until the other day he found that he could not discount his bills, unless he got some help. He went right to his bank with all the facts and figures and he put it this way:

"I've been discounting my bills," he said. "I make from two to five per cent on each turnover by doing it. Now, I am extended so far, owing to the conditions, that I haven't cash enough. It just seems to me to be good business to come to you and borrow enough at 6 per cent to enable me to get along and make my discounts and maintain my credit. You know me and here's my statement. What do you say?"

The banker looked the figures over, and said: "It looks to me to be the thing to do. How much do you want?"

"I would like to get \$10,000 to give me breathing space."

"I'll give you \$7,500," was the answer.

There are thousands upon thousands of such cases among electrical men. For that's the business of the bank and the small business men of every city go to the banks for aid. Not all of them are able to secure the money they ask for. The money that the bank loans is depositors' money. It cannot be hazarded. It cannot be loaned to any man unless he is a safe man to lend money to. But it is character, not capital, that makes a man safe. He may have money today and lose it soon. But though he may have little money, yet if he has a good record as a consistent worker, a man who succeeds because he has it in him and goes on year after year doing a little better, earning a little more, if he has shown good business judgment, then he is a safe man and a man who is entitled to borrow money at the bank. It is the same situation exactly that you meet when you apply for credit with the jobber or a manufacturer.

BORROWING MONEY IS LIKE BUYING MATERIAL FOR THE JOB

The point is this, that the bank is there for business and wants to lend you money. If it is not safe for the bank to lend you money, it is not safe for you to borrow it, for your own sake, and you should know it and realize just what it means. If it is safe for the bank to lend, it is safe for you to borrow, and when you need it you *should* borrow, rather than work along with your mind cluttered up by worry and your hands half tied. When you need material for a job, you buy it. When you need more stock for your store shelves, you buy it. Yet buying goods is really borrowing them until the bill is paid. And you should buy money from the bank in the same way.

The bank where your account is on deposit is interested in you. They want you to prosper and increase the balance that you have with them. For the more good money that you leave with them, the more they have to lend out and make a profit on. It is only by gaining new depositors and the growth of their own people that a bank can grow. The banker today feels this way about it and is eager to meet you half way.

It is a good thing, therefore, to treat your bank just as you treat your jobber. Keep your banker in touch with the growth of your busi-

ness. Drop in and chat with the officials once in a while. Tell them the kind of work you are doing, the way your business is developing, how you are fixed financially. Make them feel that you look upon them as a partner in your enterprise. Then when you need some help, they know you, and your way is easier.

HELP YOUR BANKER TO GET YOUR MEASURE

For the bank will never find out a lot of interesting things about your business unless you tell them. For instance, this thing happened to one contractor right in New York City, where the banks are supposed to be too big and busy to bother with the little fellow. One day this chap just chanced to meet the manager of his bank as he was walking out the door. They stopped and passed the time of day, and the banker asked how he was getting on.

"First rate," he said. "I've just finished the biggest job I ever swung and I've gotten my money and this letter of praise, that has made me feel pretty good."

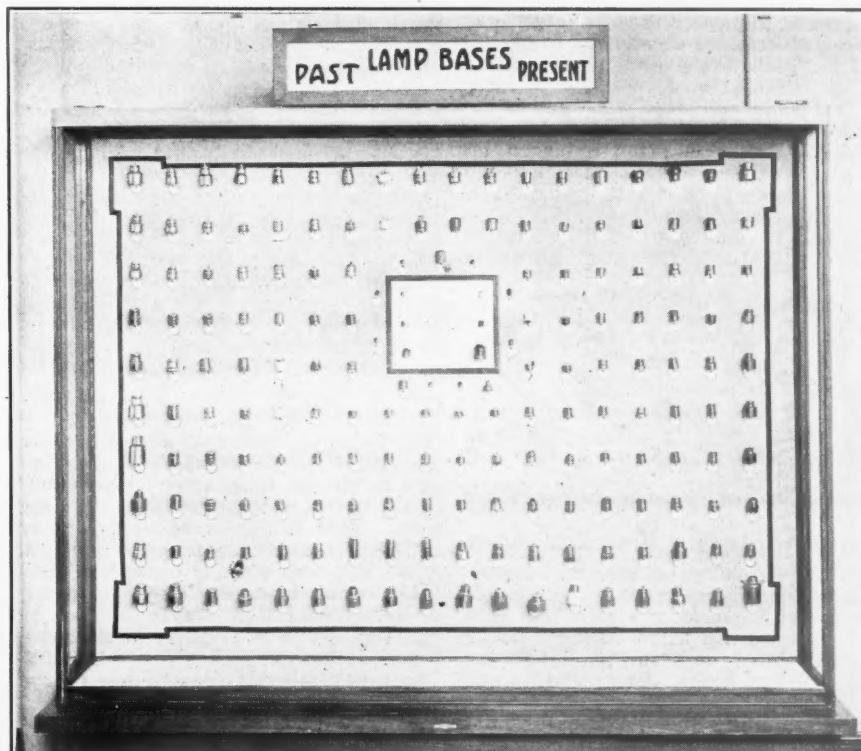
The bank man asked to see it and he read it through with interest. It was an unsolicited testimonial from a big and prominent corporation that he knew well by reputation. "I want a copy of this," he said.

"Why?" asked the contractor.

"Why, man, don't you realize that this is just the kind of evidence we are most eager to get?" replied the banker. "With this letter in our files, your credit is easily \$5,000 greater in this bank."

That is the way the bank sees character, and character is the bigger half of credit. Go to the bank whether or not you need to borrow now. Some day you will, and it is better to go to a friend than to a stranger.

We Used to Have as Much Trouble with 179 Different Lamp Bases as We Have Now with 37 Different Attachment Plugs



Each of the 179 lamp bases in this display case represents one of the 179 different types formerly manufactured in the United States. Endless confusion resulted, continuing clear down to the early 1900's, when the familiar question of the lamp clerk was still "Edison base or T-H base?" Even that double standard long ago disappeared, and today Edison's original screw-base reigns supreme.

The collection pictured is in the possession of the National Lamp Works at Cleveland. On the small card in the center are the six sizes of present lamp bases—flashlight, miniature, automobile, candelabra, ordinary Edison base and "mogul" bases, which all of the lamp factories of the country now make interchangeably.

"Such standardization serves the general economic good," comments a recent industrial writer, adding: "The trend of industry today demonstrates that this standardization is ultimately to the benefit of the individual manufacturer." Which agrees with our own ideas concerning the standardization of attachment plugs.

Twenty-five Ways to Hold Down Credit

NOT even the Great War and the deluge of troubles that has followed it have been able to break the age-old habit of borrowing from Peter to pay Paul. This reckless habit has had freer rein, perhaps, since Armistice Day than ever before in the nation's history.

A far-sighted business man, of course, cannot look with complacency on such a condition. So thinking business men in every line are trying to stop the extravagant buying and wasteful spending that have marked these post-war days and are trying to persuade the American people to return to habits of work and thrift. If people will buy necessities only, consume less of these and reinvest all possible savings in productive industries a far, far better day will come to America.

Establish a Collection Policy

POOR COLLECTIONS and a disproportionate volume of credit sales usually indicate a poor collection policy or none at all. A carefully thought-out policy is as necessary in merchandising as mortar is in making a brick wall. Determine a policy fair to yourself and fair to your trade. Acquaint your salespeople with your policy and see that your customers also know it. Then enforce it. This is fundamental. No special "stunt" for getting your money collected can compare in value with a sound policy firmly and fairly enforced. Fast and loose collection methods result in fast and loose profits. Leave out the mortar and the wall falls.

Sell for Cash Whenever Possible

YOU WILL HAVE less trouble in getting customers to pay up if you carry fewer customers' charge accounts. Therefore sell for cash whenever it is possible to do so. Of course, do not lose the sale by refusing credit if you know the credit can be fairly and honestly extended. Credit is often extended on small purchases when a tactful word or two would turn it into a cash sale. Have all your salespeople make your confidential instruction their silent slogan, "We sell for cash whenever possible."



Extra Money for Your Salesmen

LET YOUR STORE SALESMEN and house-to-house salespeople earn an extra dollar or two by making a collection now and then during their business hours as they have opportunity or during their off-duty hours. Try this idea out any time, but it ought to work well at the beginning and middle of the month—the time when "the ghost" walks for many people, meaning the pay envelope, of course.

Hook Up with the Meter Man

WHY NOT get in touch with the commercial manager of your local central station and arrange to have the meter man present your bill to your customer and make the collection when he calls

monthly to read the customer's meter? This plan should work out well, especially in the smaller cities and towns. Have the meter man report directly to you and pay him a small commission on each account settled in full. That's better than not getting a settlement. Choose your accounts carefully for this method of collection and instruct the meter man carefully. If dealers' stores offer good advantages for collecting central station bills monthly, why is not the meter man a good person to help collect the contractor's or dealer's bill, when that method is expedient?

Charge Account Prices

ONE OF THE MOST SUCCESSFUL hardware stores in Connecticut—and one that is selling electrical goods—marks its "charge account price" on all of its price tags. And that is the only price mark appearing on the tag. Why? Because in former days many of its customers insisted on carrying charge accounts and on paying up about when they felt like it. The interest that the uncollected money could have earned almost exceeded the profits. Hence the change to the "charge account price." Now when a customer buys he is surprised pleasantly to find that he gets a discount for cash on the spot, and learns that he must pay the larger amount if he wishes the purchase to go on an account and make it necessary for the proprietor to collect later. That is an excellent way to teach the public the cost of collections.

Charge Interest

MANY RETAIL DEALERS and a goodly number of professional men have begun to charge interest on outstanding accounts not settled within a certain time. This is almost the opposite of giving a discount for prompt payment. After all, why should it not be done? When value is received by one party to the transaction, value should be received by the other party at the same time. If not, why should not the customer pay interest for the use of the seller's money? Think it over.

Send Your Inspection Man

DON'T HIRE a professional, free-lance "bill collector." Train one of your salespeople to do a better job of it. Send him around ostensibly to inspect the appliances that you have sold, to make sure that they are in good working condition and are being used correctly. Let him make the collection quietly before he leaves.

Use the Trade Acceptance

GET ACQUAINTED with the trade acceptance, if you have not already done so. Work out your own method of using it. Then use it. Get your customer to sign an acceptance covering the amount that he owes you. You can then discount the acceptance at the bank and get your money. One St. Louis electrical house has been using the trade acceptance for several years. Ask your banker about it. He can tell you how to use the acceptance, at least he ought to be able to do so if he is an up-to-date banker.



Send Another Appliance

SURPRISE YOUR DEBTOR by sending another appliance to her home. Let the salesman who delivers it make the demonstration and leave the appliance for a short trial. Have him call again in a day or two and complete the sale, if possible. He should sell for cash if he can, but he should first of all collect the balance due on the previous bill.

Open for Collections Only

IF YOUR BUSINESS happens to be located in a small city or town you know quite well how prone the population is to go promenading on Saturday night or on band concert night. It may be that you and the other business men have agreed to close every night at six during the summer. Perhaps all of you close up for Wednesday afternoon, and the weekly band concert comes on Wednesday night. Why not advertise that you will be open for one hour on that evening—"for collections' only." On such a night the crowd is likely to contain many of your customers. It should be easy for one to slip in and pay up.

Telephone to Him

IT WILL SAVE TIME, money and effort to use the telephone now and then. If he owes you a bill, or if she does, call up and have a friendly chat about the matter. Be careful how you do it. Make sure that nobody is listening on the line. Don't threaten. Talk briefly. Make the man who owes you pay you a smile by wire, at least, and get his promise for an early settlement.

Sales and to Get Customers to Pay Up

One of the first steps in the right direction is for everybody to pay up his bills. To help retail electrical men get their money so that they can pay their bills ELECTRICAL MERCHANDISING offers the suggestions below for holding down the volume of credit sales and for getting customers to pay up. Bear in mind that the collection method used must always be suited to the customer on whom it is to be used. Remember also that human nature is still so constituted that you must still offer inducements to get people to pay their bills just as you must offer inducements to get them to buy. That is why many of the suggestions below are built around the "give something to get something" method. There are enough suggestions to start you in the right direction. Try some of them—and good luck to you.

EDITOR.

Beware of "Poor Pays"

IN EVERY COMMUNITY there are people who are commonly known as "poor pays." Beware of these. Sell to them, knowing their reputation, and you have only yourself to thank, if you add to your credit sales and to your collection difficulties. Sell to them, by all means, but sell for cash. You then do yourself a good turn and you certainly help them to improve their own credit standing in the community.



Sell Time-Payment Contracts to the Banker

SOMETIMES A BANKER can be persuaded to take over for you the time-payment leases of your customers, thus permitting you to get in your money less a reasonable discount. The banker is not likely to do this unless he is sure that leases are absolutely good. He is more likely to favor the trade acceptance. Many leases require the use of the acceptance. Frequently, however, dealers and contractors have made arrangements whereby the local banker takes over the contracts.

Collection Day

WHEN A CUSTOMER opens up an account tell her that the last day of the month (or some other day) is your "collection day," on which you make collections of outstanding balances from house to house, merely as a way of making it easy for the woman in the home (or the man) to pay up any outstanding balance or an installment on a time-payment purchase. Some folks will avoid this call of your collector by paying up in advance. Other customers will wait until he calls.

Shall I Go to Law?

SOONER OR LATER in the effort to collect what looks like a lost "balance due" there comes a time when the dealer asks himself, "Shall I go to law in this matter?" Of course there are times when this must be done, but be sure that you have arrived at that time. Many a creditor has lost the "balance due" and also the good will of a slow debtor by threatening a suit at law too

early in the game. Just about the time the debtor looks for the usual "recourse to law," surprise him with a friendly little word showing your confidence in him and in his ability to pay up. Often this little note of confidence is just the thing needed to bring in the money.

Repairs Free

APPLIANCES WILL get out of repair sometimes, usually through some fault of the customer. If a bill has been outstanding for a long time, perhaps the appliance is out of repair. Find out. Offer to make the repairs free, if the account is closed.

Make Him Recognize Your Business Ability

"I AM BADLY in need of the money that you owe me," is a sentence seen many times in poor collection letters. It ought to be killed and buried. Tell your debtor that you are having difficulty in collecting your money and he will be convinced that in that respect you are just as poor a business man as he is in not paying up. He probably reasons rightly that if you have a heavy amount tied up in unpaid balances due from your customers you also probably have a number of creditors who are pushing you. Convince him that you are an able business man and show him that you expect him to be the same.

Write Him a Letter

WRITE JUST as you would talk to him, if you were face to face and both of you in a smiling mood. Forget the "beg to advise" and the "unless we receive your check by return mail" and the "we shall be forced to resort" and the "must act without delay." All of these threadbare phrases are known to every ten-cent debtor in the land. He recognizes them as the earmarks of a weak and carelessly planned collection system. If you use a form letter system in handling your collections, be sure that the letters are out of the ordinary run of such letters and that they carry a personal note.

Offer a Discount

WHEN YOU ARE FACED with an out-and-out loss of the entire balance due and when you have practically given up hope of collecting any portion of what is due, offer an attractive discount for settlement at once. Better get even a small part than none at all. Don't use this method except as a last resort.

Scale of Discounts

DEALERS have sometimes aided their collections by offering a set of discounts, each discount for a short period, and the discount diminishing as the time lengthens before payment is made.

Have His Banker Speak to Him

IF A MAN owes you a goodly sum of money and he has repeatedly refused settlement, and if your banker happens to be his banker also, perhaps a careful word spoken by the banker at the right time will bring in the money.

Get It on Demonstration Day

SOME TIME when you are planning to hold a special demonstration in your store mail your slow-pay customer a personal letter announcing the demonstration and inviting her to come. Don't mention the "balance due." The customer will expect you to do it and will be pleasantly surprised at its absence. An invitation instead of a "dun" will often prove the better bait.

Pool Collections

PERHAPS YOUR CUSTOMER who does not pay his bill also owes money to other electrical contractors. If you have reason to think so, get in touch with the other creditors—and all of you send him a collective bill. Against your united effort he may hesitate to delay payment any longer.

Buy New Business

OFFER A DEBTOR "a dollar off" of her balance for every sale to a prospect whose name is suggested by the debtor.



Take Him To Lunch

SUPPOSE YOUR DEBTOR is a business man who may be a prospect for still more business. Take him out to lunch some day, don't mention the "balance due," talk about more business, foot the bill for the lunch, and leave him with a pleasant good-by. Your hospitality will urge him to pay up every time he thinks of the good meal.

Monthly Electricity Bills Are Payable at This New Dealer's Store in Washington

ELECTRICAL MERCHANDISING has been advocating the plan of having electrical service bills payable through the stores of responsible electrical contractor-dealers scattered through each community, wherever possible. We believe such collection service to be to the best interests of the customer, the dealer and, above all, the electric lighting company, as pointed out in detail on page 220, ELECTRICAL MERCHANDISING for May, 1920.

The Washington D. C. central station officials evidently agree with this point of view, for they have made a start in the right direction by announcing that electricity bills due the company can be paid at this handsome new electric shop

of a new Washington dealer, the Potomac Electric Appliance Company, 607 Fourteenth Street, Northwest. And not only can electricity bills be paid at this dealer's store—right in the center of Washington's shopping district—but orders will be taken there for new electric service and for the installation of meters, making a complete service to the customer at the dealer's store. The new store of the Potomac Electric Appliance Company is one of the handsomest electric shops in the country and is in charge of John C. McLaughlin, for twenty-five years commercial manager of the local lighting company. F. J. Saylor of Philadelphia is president, Fred Wardell of Detroit is vice-president and J. C. McLaughlin is secretary-treasurer.



How the Credit Man Can Help*

In the Present Business Situation the Electrical Credit Man's Responsibility Is to Counsel with His Firm's Customers in Their Problems of Stocks, Turnover, Expense, Credits, Collections and Accounting

By W. E. RICE
Credit Manager Western Electric Company, New York City

IN THE distribution of electrical merchandise there is no greater outlet than through the electrical contractor, or, as he is better known today, "the contractor-dealer." With the advent of a number of new electrical appliances, the demand for which is very large and significant, the contractor has met the situation by considering himself the logical agent through whom the largest distribution can be made effective.

Thus the contractor-dealer finds himself engaged in a new rôle—that of a merchant, facing the problems incident to merchandising, such as investment in merchandise and receivables, turnover, expense, credits and collections, proper accounting methods, etc. And to some extent, due to his lack of training along merchandising lines, he finds himself more or less dependent upon those qualified to give advice.

Here, then, is an opportunity for the credit man to be both constructive and productive, to be a liquid not a fixed asset. Here is the opportunity for him to make permanent friends and customers for his house and to stimulate that business potentiality in an account that means increased sales with a minimum of credit troubles—a real chance to co-operate with the sales force and to be called by them "human," and not everything else in the vocabulary.

THE CONSTRUCTIVE WORK OF THE CREDIT MAN

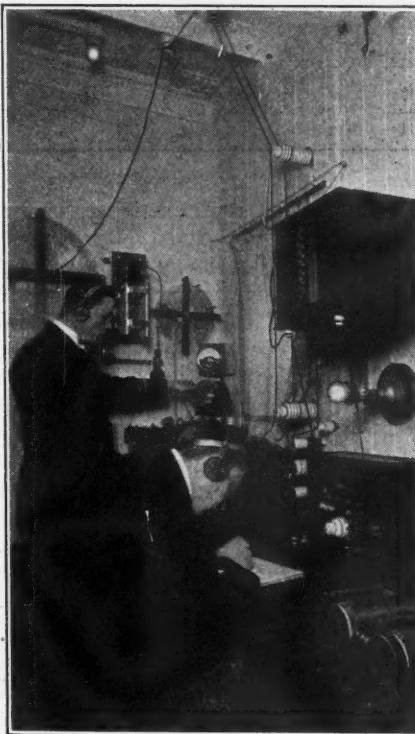
We hear much about the glories of the sales department. Why not hear more about the constructive work of the credit man, who can be much more than a cold-blooded sentry watching over the outstandings? The big credit man counsels with the customers, shows them how to keep their resources properly

*From an address before the National Electrical Credit Association, New York City, June 17, 1920.

balanced, how to avoid reefs in the currents of business.

The word credit comes from *credo*—"I believe." To give a man credit means literally to tell him "I believe in you." But to see is to believe, and the measure of your belief or confidence in your customer depends upon personal contact, without which an injustice may be done him as well as your employer. Likewise the customer's belief and confidence in his supplier is measured by the interest manifested in his problems by both salesman and credit man.

Radio—The Field of Ever New Developments



Developments come so fast in radio that there is little chance of the field becoming saturated. The history of receivers—from coherers to "crystals" to "bulbs"—is only one example of the rapid and complete changes which are taking place in the art. And the devoted wireless "bug" is always out to buy the latest in the radio line.

There are some contractors or contractor-dealers who are greatly handicapped by their failure to employ proper accounting methods, and they will not appreciate the necessity for adequate and accurate books of account until they are made to realize the significance of some of the factors that enter into the merchandising business and their proper allocation.

If the opportunity presents itself show your customer how to compute his costs, and, in this connection, the necessity of determining accurately his overhead expense and its apportionment, and you will at once suggest to him the importance of classifying his expense through proper accounts for this purpose. It will also be apparent to him that in no other way can he control his expense than by knowing what he is spending for rent, light, heat, advertising, freight, insurance, labor, clerk hire, etc.

If the customer is a contractor-dealer suggest the importance of so arranging his accounting system that he can ascertain the results achieved in either the merchandising or contracting end of the business, for certain it is that each line must bear its proper quota of overhead expense if justice is to be done to either department. Often it is the case that one department is making money while the other is losing.

WHAT TO POINT OUT TO THE CUSTOMER

Call attention also to obsolete stock or overstock and to past due accounts or those involved by reason of bankruptcy, receivership or other legal entanglements. Immediately enlighten your customer as to the soundness of values and the employment of accounts to take care of depreciation. In no other way can the real significance of turnover both as to merchandise and receivables be

Dealers in Seaport Towns Sell Radio Supplies to Ships' Operators



Electrical dealers in seaport or lakeport cities can sell radio supplies to the ships' operators on vessels calling at the local harbor. These ships' operators are continually buying radio supplies, parts, devices and instruments, for use with the standard ship's equipment. One-quarter of the counter sales of one large New York City electrical dealer are in radio goods. Much of this material goes on shipboard. The operators present duly filled-out requisitions for the supplies they need, the bills being collectible from the steamship companies.

appreciated or the consequences of overbuying and a lack of prescribed methods for effecting collections be made apparent.

The question of turnover, both as merchandise and receivables, cannot be emphasized too strongly. One of the greatest assistants to a merchandising turnover is the keeping of a perpetual inventory. This operates as a strong check upon overbuying and keeps continually before one those lines of material for which there is no demand or in connection with which there is not proper sales effort.

The value of the trade acceptance, its proper use—not abuse—is a subject that vitally affects both buyer and seller and there is room for an endless amount of constructive work with your customer if this new credit medium is to be universalized and operate as a complete substitute for the open-book system.

Several of our larger corporations

have already organized a distinct department of their business, known as a Business Service Department, operating under the supervision of a credit manager, its function being to supply those seeking advice with information on accounting methods, credits and collections, trade acceptances, insurance, in fact, everything essential to the proper conduct of either a contracting or merchandising business. It is certainly a step in the right direction and cannot help but ultimately assure the minimum rather than the maximum of credit waste and a closer relationship between both buyer and seller.

The credit man has advanced from a clerical position to a professional status, which emphasizes his importance as an educator. It is said that the physician teaches his patients the value of sanitation, how to forestall illness and disease. The lawyer endeavors to reform bad laws or to have passed those which correct

wrong conditions, to simplify legal procedure, that the layman may understand or at least make of himself an intelligent client.

The credit man, by his foresight and knowledge of commercial activities and conditions, can, by his constructive effort, minimize the difficulties that engross his patients and clients, as well as employer, and that lead to legal and financial disasters. As an educator, or teacher, he will not indulge wrong methods, policies, conditions, excessive credit extensions, unusual terms of payment, abuse of trade privilege, sharp practices leading to dishonesty, incompetency, etc.

"LESS SENTIMENT AND MORE BUSINESS FACTS!"

It is surprising, indeed, that some credit men will intuitively search for conclusive standards of judgment and endeavor to convince you that the man who stutters is telling a falsehood, or that one's character is determined by his manner of walking or the color of his hair, if he has any.

After all, the intuitions of a productive credit man are nothing but the expression of deductions based on an orderly arrangement of facts and figures. What we need is less faith and sentiment and more facts.

Get the viewpoint of the salesman, consider it carefully, visit his territory with him, understand thoroughly what he has to contend with, for he has real problems which you can help him solve. Personalities become of less concern between salesman and credit man when they know each other and their respective problems. The salesman comes to understand that the granting of credit is not a matter of caprice, but is determined by fixed processes.

The constructive credit man considers the viewpoint of another; he knows that there are those of his customers and associates who have horse sense and whose opinions, if not always valuable, are at least worth listening to.

The responsibility lies with us. We cannot or should not meet competition by indulging those things that are a positive injustice to our customer as well as ourselves, and that tend to destroy the moral and commercial fabric upon which the success of both depends.

Schiller says, "Wouldst thou other men know, look then within thine own heart; wouldst thou know thyself, observe the actions of others."

Statistics Needed on Costs of Distributing Merchandise*

We Now Have Census Figures on Production and Manufacture
and We Need a Similar Survey of Jobbers' and Retailers' Activities

By EDWARD N. HURLEY

Former Chairman United States Shipping Board
Former Chairman Federal Trade Commission

IT HAS been stated that, before the war, not more than one hundred Americans had an international vision. Since the war that number has greatly increased, but as a whole we are still inclined to be concerned only with our home affairs. But, gentlemen, the future success of our country depends absolutely upon men who are thinking internationally.

Those American manufacturers and merchants who are not planning to sell at least 10 per cent of their products to foreign countries and to carry on advertising campaigns that will keep American products before the eyes of the world are not doing their part as Americans. For otherwise we cannot realize the fullness of American prosperity.

Trade journals enabled the advertising man to keep his finger on the pulse of different industries!

Advertising today is a necessity and an asset. The time has arrived when the manufacturer and the merchant must carefully figure the advertising cost, carry it in the budget as an expense, just as essential as rent or labor, properly charging it against each product and article. Advertising has been hurt by emotional appropriations, by spasmodic flares. For instance, some men still advertise only when they have spare money and never put out a line when times are dull and they need business! The amount and nature of advertising is to be planned with the production scale. Only then can we stabilize manufacturing, merchandising and advertising.

The name of the small merchant today who has foresight and judgment in the merchandising of his products may be as well known as John Wanamaker in his particular locality, or even throughout the nation. His products are known by his advertising and his success depends upon the merits of the products he furnishes to the customers that the advertising

brings to him. And the manufacturer or merchant who is advertising sanely today is not only laying the foundation for greater business for himself but is selling the public on his industry. His success will be the guide post for his competitors, and the post will always read, "Advertise."

ADVERTISING REDUCES WASTE

Advertising of a thoroughly sound and scientific kind must of necessity cut out waste in order to give the most for the money, which is business. I know of nothing that so cuts out the wastes of distribution as proper advertising, for it tends to reduce the heavy burden of sales expense by increasing the efficiency of the salesman. In my early days I sold goods that were not advertised; hardly any one advertised then. On each call I had to start my demonstration from the ground up, for no one ever knew in advance anything about what I had to sell.

In later years I sold articles that were well advertised and I found my energies tripled, for the printed word had made unnecessary much of my preliminary talk. The wrong advertising is waste; the right advertising is money saving and is essential to volume business. And therefore I further take it that we all agree that advertising is not primarily the science of making a noise, but is rather the science of

I am fearful that our manufacturers, merchants and advertising men do not appreciate the trade publications which are doing so much from a scientific as well as a practical standpoint in stabilizing conditions and working out the many problems existing in their respective fields. When I was chairman of the Federal Trade Commission I made it a point to have the principal trade papers in the United States sent to me regularly. These were read not only by myself but by the entire staff, so that we might have a finger on the pulse of the country's industry.

giving just the right amount of aid in the distributing of the right amount of goods.

Advertising is bigger than we have thought. Advertising men have concentrated on the final step in the sales of products between manufacturer and consumer. What they can do is to analyze and direct the advertising that affects the whole chain of distribution.

Advertising has a big and important function and opportunity in shortening the distance from industry to industry, in facilitating, improving and cutting the cost of inter-industrial operations.

Manufacturers have gone a long way in the refinement and improvement of manufacturing processes, and not far enough in too many instances in speed-

Merchants must figure advertising cost in their budgets as an expense, just as rent or labor, charging it against each product and article.

ing up distribution by the adoption of the modern labor saving machinery of advertising.

THE INVENTOR'S DUTY TO MARKET HIS PRODUCTION

Advertising can help production too, by promoting installation of improved machinery and better processes and better materials. A man has not done his full duty when he produces a machine to eliminate human drudgery and cheapen production. He owes an obligation to society, as well as to himself, to use the educational influence of advertising, to put its dynamic forces to work in the interest of the general welfare.

As a national advertiser I should value more highly the services of an advertising man familiar with the trade journals in my industry. I am fearful that our manufacturers, merchants and advertising men do not appreciate the trade publications which are doing so much from a scientific as well as a practical standpoint in stabilizing conditions and working out the many problems existing in their respective fields. When I was chairman of the Federal

*From an address June 8, 1920, before the Associated Advertising Clubs of the World, at Indianapolis, Ind.

Trade Commission I made it a point to have the principal trade papers in the United States sent to me regularly. These were read not only by myself but by the entire staff, so that we might have a finger on the pulse of the country's industry.

Advertising agencies placing national and international advertising could well insist on every man in their employ reading the trade journals of the industries of their clients so that they may keep themselves currently informed on the conditions in the businesses for which they are writing copy. I believe in the business journals. I have been closely associated with the work of many and have made a study

Systematic and forceful advertising can be effectively employed to picture to the individual workman, farmer and business man of the country the importance to them of an American-owned merchant marine.

of them, and I am firmly convinced of the editorial strength and value of many of these publications.

WE MUST ANALYZE COSTS OF DISTRIBUTION

A decided improvement has been made by our manufacturers in arriving at true manufacturing costs of their products, and now where a manufacturer sells direct to the consumer he is generally familiar with his selling costs, and this information is available. On the other hand, where the manufacturer sells to jobbers and dealers, both of whom are necessary factors in the distribution of his wares, and through whom 90 per cent of all our products, both manufactured and farm, reach the consumer, there is a feeling on the part of the public that the distributors are making excessive profits, and they feel that prices would be lower if only they were able to purchase direct from factory or farm. In the absence of any facts on this subject it would be folly to agree that such would be a better and more economical method of distribution.

Engineers, scientists and the government, through the census, have accumulated almost unlimited information on the volume and cost of production. Our government takes a complete census of manufacturing industries of the country every five years, but we have never had a survey of our jobbers and retailers and their merchandising methods. There are no corresponding statistics on distribution, although it is twice as important from the standpoint of the consumer. Many statements have been made that our merchants are responsible for high prices. In justice to them we should determine the costs of distribution by the various methods and the volume of business transacted through the various channels. At-

tempts to make distribution more scientific and economical are blocked by lack of authentic data. We only get soapbox figures. It is high time that this important feature of merchandising should be carefully analyzed by our government, and I earnestly urge this great organization to recommend to Congress that a bill be passed providing for a special survey to be made at the earliest possible date, so that the question of the cost of distributing our principal products may be ascertained and settled.

A SURVEY OF JOBBERS AND DEALERS

The bill should provide for an advisory board of, say, nine members to serve without pay and to be appointed by the Secretary of Commerce, consisting of representatives from such organizations as the Associated Advertising Clubs of the World, leading trade paper, magazine and newspaper publishers' associations. This board would cooperate with the Secretary of Commerce and the Director of the Census in preparing questionnaires, suggesting data required and in other matters on which they might desire advice. There are many problems involved in this great question, and with the compiling of such data by the government the information could be quickly analyzed and given to the public at an early date. The cost for the survey would be small compared with the benefits the public would receive. It should have a most important bearing on the solution of the present high cost of living, for it would show the facts.

Advertising agencies placing national and international advertising could well insist on every man in their employ reading the trade journals of the industries of their clients so that they may keep themselves currently informed on the conditions in the businesses for which they are writing copy. I believe in the business journals. I have been closely associated with the work of many and have made a study of them, and I am firmly convinced of the editorial strength and value of many of these publications.

This census should endeavor to collect and tabulate such information as the following:

1. Volume of wholesale sales.
 - (a) By lines of merchandise.
 - (b) By cities and states.
2. Volume of retail sales.
 - (a) By lines of merchandise.
 - (b) By cities, counties and states.
3. Costs of distribution charged to broker, to wholesaler, to retailer, to transportation, to advertising, etc.
 - (a) By lines of merchandise.
 - (b) By states.
4. Census of retail outlets.

5. Consumption statistics.

- (a) In money.
- (b) In volume of goods.
- (c) By lines of merchandise.
- (d) By cities, counties and states.

6. Distribution from industry to industry.

- (a) Completely manufactured products.
- (b) Semi-manufactured products.
- (c) Raw Materials.

The above is an ambitious program and a few years ago would doubtless have been considered an impossible one. I believe, however, that the income tax has forced business men to keep records which would enable the census department to secure most of this in-

Today it is as important to know the cost of distribution as it was a few years ago to ascertain production costs. The government should make a survey of our jobbers and retailers and their merchandising costs.

formation. It would be of inestimable value not only to every person with goods to sell but also to every consumer of merchandise, in that it would furnish information that would make distribution more scientific, efficient and economical.

We want to know just what is the best way to distribute at home; then we can also discover what we should sell abroad and where and how. But we shall not be able to stabilize our making and selling by use of the foreign trade unless we have carriers to take those goods over the seas.

A PLEA FOR AMERICAN-OWNED SHIPS

And this brings me to a subject which is very close to me. I want to ask this great organization to help sell our merchant marine to the American people. If the Associated Advertising Clubs of the World will get behind our merchant marine, advocating private ownership, impressing upon the workmen, farmers and business men the importance to them of having American products transported in American ships, the association will have done a great public service.

You know that we have doubled our manufacturing capacity in the past five years and we can now supply manufactured articles for all of our normal home consumption in about six months. We must increase our home market, but, as I have said, if labor is to be kept employed and our factories operated on full time we must send our surplus into foreign markets. Unless the need of our merchant marine is sold to the American people and they become willing to back it up by investing their money in ships there will come a day when our lack of foresight will be more than a source of great regret. As to how it should be done you are the best judge, but I urgently

request you to appoint a committee whose duty it will be to educate the people of this country to the absolute necessity of having a privately owned and efficient merchant marine.

The United States Shipping Board is doing everything it possibly can to help. Our Senators and Congressmen are doing their part, but the responsibility for arousing keen interest in our merchant fleet should be assumed by you.

I have just finished my book on the "New Merchant Marine." It is dedicated to the American boy. Our flag has been returned to the seven seas. It is the duty of the American boy to see that it remains there. There is not a port in the world today that American ships flying the Stars and Stripes are not entering. Will you not back up the American boy and help keep the flag flying at the mast of eighteen hundred steel ships?

Only 20 per cent of our business men vote. It is ourselves who are at fault to a great extent when constructive legislation is not enacted.

In closing I want to make an appeal to you as business men to take a more active part in our national and state government. Do you realize that only 20 per cent of the business men of this country vote? I'll venture to say that the men whom this 20 per cent vote for are of the right caliber, but how can we expect results from Congress and Legislature when only such a small minority of us are interested in the policies of our government? We complain enough when something is done wrong, but what are we doing to see that it is done correctly in the first place? I have a high regard for the services rendered by our national and state legislatures, and it is we who are

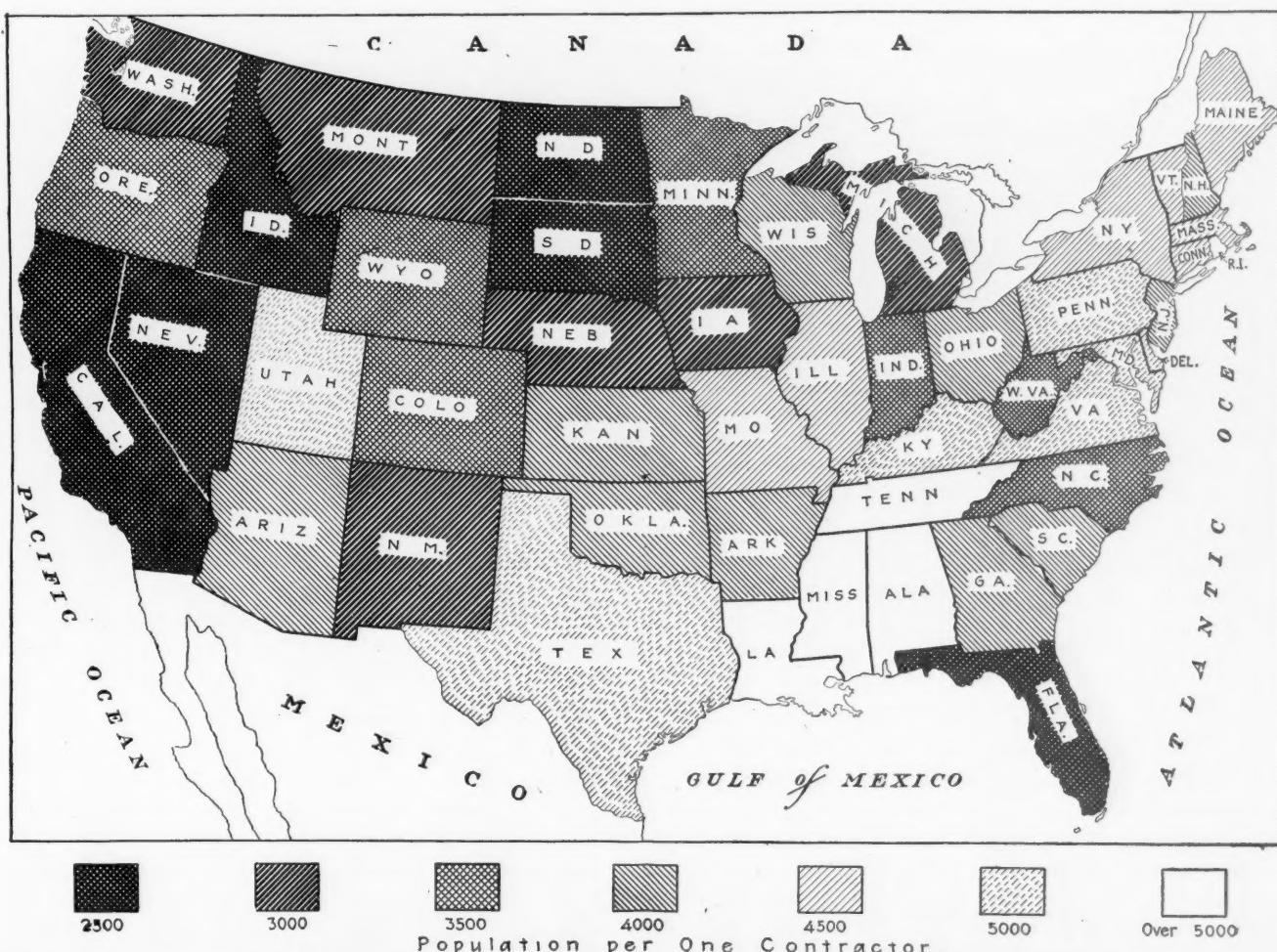
at fault to a great extent when constructive legislation is not enacted.

Let us assume our share of the responsibility of government and endeavor to make this country as efficiently managed as we want our businesses to be.

Use Suggestion Cards

"We are great believers in the use of small, neat suggestion cards," says O. J. Mitchell of the Laube Electric Construction Company, Rochester, N. Y. This company keeps a good supply of cards on hand and constantly changes those in the store, on the various counters and tables. The cards carry the briefest kind of messages, such as suggesting to customers that they keep extra bulbs and fuses in their homes, the convenience of various appliances, etc., but they serve often to remind customers of purchases to be made.

A Bird's-Eye View of Contractor-Dealer Distribution in the United States



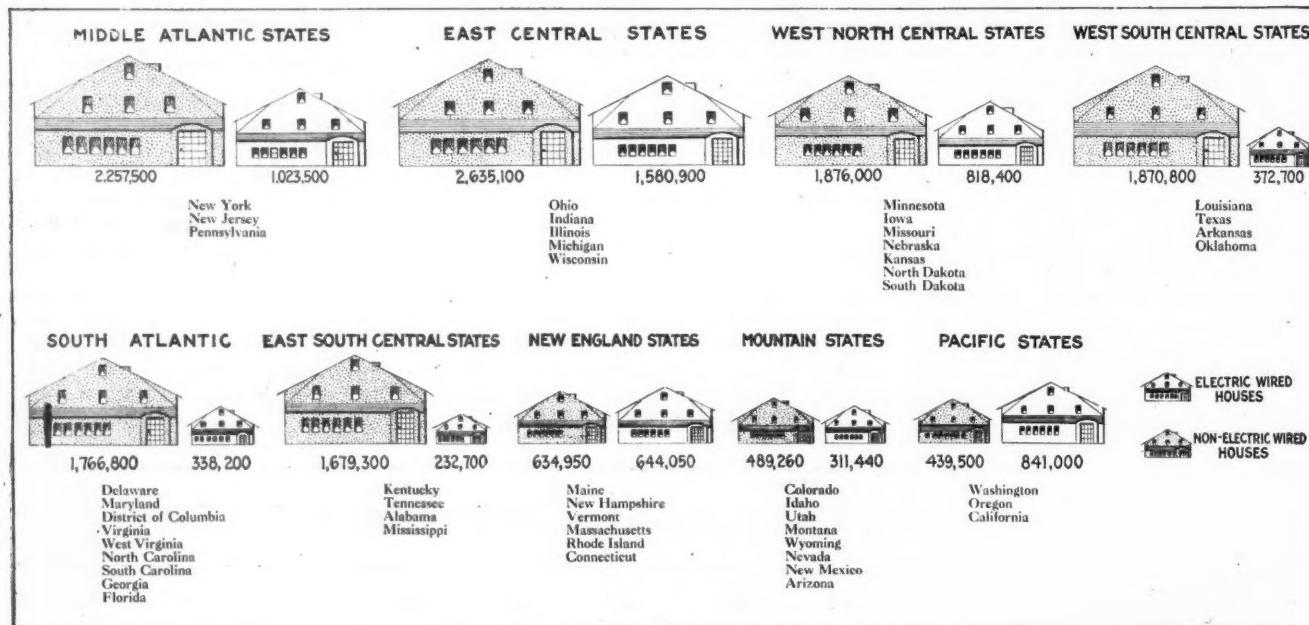
Where to locate his new store—the first question of the electrical retailer seeking new fields to conquer—usually finds its first stumbling block in the lack of definite information about the territory to be invaded. Just what is the degree of "saturation" in a particular state—as far as the number of electrical contractor-dealers is concerned—is a matter of interest to the dealer just going into business. The accompanying map was prepared to give a bird's-eye view of the contractor-dealer situation in the United States, the blacker states showing the greatest degree of saturation, the white states showing the fewest number of dealers in proportion to the population. On an average, there is one contractor-dealer to every 3,000 persons in the country (the figures

comprising contractors, dealers, contractor-dealers, and fixture dealers). California, for example, has one dealer to every 2,200 of population. Louisiana, on the other hand, which is entirely white on the map, has only one dealer to every 6,300 persons. The map by no means purports to show the richest fields for electrical enterprise, for local conditions make it out of the question to judge the possibilities of a community merely by the number of dealers already in it. Indeed, in this "barely-scratched" industry of ours, the place where the most dealers are already doing a good business is just the region where the public is likely to be—most "sold on the electrical idea!" and therefore most receptive to further electrical merchandise sales efforts.

Installing Electric Service in the American Home

Just how far the electrical industry has progressed in installing electric service in the American home is indicated below in the diagram showing the proportional number of electrically wired and non-wired houses in various sections of the United States and in the table giving the present electrical status of each of the states. Both diagram and

table were prepared by *Electrical World*, following a survey made early in 1920. Every electrical man may well give careful thought to the standing of his own section. Let him remember that electricity offers a very definite opportunity for lowering the cost of living without lowering American standards of living.



Present Status of Domestic and Commercial Electric Service by States and Sections

State	Population of State (Estimated from 1910 Census) (2)	Population Reached by Central Stations (3)	Per Cent of Total Population Reached by Central Stations (4)	Dwellings in Territory Covered by Central Stations			Dwellings in States			Population Living in Electric Lighted Houses			Farm-Lighting Plants			
				Persons per Dwelling	Total Dwelling Number	Number Wired	Per Cent Wired	Number Not Wired	Total Number	Per Cent Wired	Number	Total	Stores	Per Cent of Farms Served	Farms	Per Cent of Total Farms
Alabama	2,446,000	632,000	25.9	4.8	131,600	52,400	39.8	79,200	510,000	10.3	252,000	10.3	8,550	262,901	2,500	1.0
Arizona	286,000	144,000	50.3	4.5	32,000	12,920	40.4	19,080	63,500	20.4	58,200	20.4	4,980	9,227	590	0.4
Arkansas	1,512,000	446,000	23.8	4.8	90,800	48,200	53.1	42,600	383,000	12.6	221,000	12.6	13,020	21,678	3,260	1.5
California	3,267,000	2,827,000	86.5	4.6	613,000	561,000	91.4	52,000	710,000	79.0	2,580,000	79.0	76,700	88,197	2,410	2.7
Colorado	1,058,000	700,000	66.3	4.3	162,800	99,100	61.0	63,700	246,000	40.3	427,000	40.3	19,050	46,170	2,690	5.8
Connecticut	1,320,000	1,160,000	88.0	6.1	190,000	119,830	63.0	70,170	216,000	55.5	731,000	55.5	33,200	26,815	1,820	6.8
Delaware	220,000	141,000	64.0	4.7	30,000	9,270	30.9	20,730	46,800	19.8	43,600	19.8	3,130	10,836	310	2.9
District of Columbia	437,000	430,000	98.3	5.7	75,400	21,800	28.9	53,600	76,700	28.4	124,000	28.4	2,980	217	0	0
Florida	976,000	447,000	45.8	4.5	99,400	67,000	67.3	32,400	217,000	30.9	302,000	30.9	8,500	50,016	2,510	5.0
Georgia	3,001,000	832,000	27.7	4.9	170,000	80,700	47.5	89,300	612,000	13.2	396,000	13.2	22,500	291,027	7,240	2.5
Idaho	489,000	246,000	50.3	4.5	54,700	38,160	69.7	16,540	107,600	35.4	172,000	35.4	9,775	30,807	1,800	5.8
Illinois	6,454,000	5,150,000	79.8	5.6	919,000	626,000	68.1	293,000	1,153,000	54.3	3,505,000	54.3	174,700	251,872	15,300	6.1
Indiana	2,885,000	1,700,000	58.9	4.3	395,000	197,700	50.0	197,300	671,000	29.4	850,000	29.4	32,450	215,485	11,250	5.2
Iowa	2,224,000	792,000	35.6	4.5	176,000	107,400	61.0	68,600	494,000	21.8	482,000	21.8	22,650	217,044	18,700	8.6
Kansas	1,911,000	930,000	48.7	4.4	211,200	145,700	69.6	65,500	434,000	33.6	640,000	33.6	21,790	177,841	8,940	5.1
Kentucky	2,433,000	754,000	31.0	4.9	153,800	90,200	58.7	63,600	497,000	18.2	442,000	18.2	25,330	259,185	5,330	2.1
Louisiana	1,931,000	676,000	35.0	5.0	139,200	44,800	29.5	90,400	386,500	11.6	224,000	11.6	9,670	120,546	2,670	2.2
Maine	790,000	639,000	80.8	4.7	139,900	77,700	57.2	58,200	168,000	46.2	365,000	46.2	22,880	60,016	1,480	3.3
Maryland	1,403,000	826,000	58.9	5.1	162,000	50,000	30.9	17,200	275,000	18.2	255,000	18.2	16,900	48,923	2,850	5.8
Massachusetts	4,126,000	4,030,000	97.8	6.6	612,000	338,500	55.3	273,500	625,000	54.2	2,232,000	54.2	49,250	36,917	880	2.4
Michigan	3,199,000	1,945,000	60.7	4.5	432,000	257,000	59.5	175,000	710,000	36.2	1,156,000	36.2	38,300	206,960	6,770	3.3
Minnesota	2,399,000	1,393,000	58.2	5.5	253,200	188,000	74.3	65,200	435,500	43.2	1,034,000	43.2	39,800	156,137	7,320	4.7
Mississippi	2,042,000	347,000	16.9	4.8	72,300	35,600	49.2	36,700	426,000	8.4	168,000	8.4	7,980	274,382	2,490	0.9
Missouri	3,479,000	2,080,000	59.8	4.9	424,500	207,000	48.8	217,500	709,000	29.2	1,014,000	29.2	66,000	277,244	6,460	2.3
Montana	508,000	311,000	61.3	4.5	69,200	51,300	74.2	17,900	113,000	45.4	231,000	45.4	7,830	26,214	1,610	6.2
Nebraska	1,318,000	568,000	43.2	4.6	123,500	88,700	67.3	34,800	286,000	31.0	407,000	31.0	19,620	129,678	10,580	8.1
Nevada	122,000	66,300	45.3	3.6	18,420	14,480	78.6	3,940	33,900	42.7	52,200	42.7	1,427	2,689	200	7.5
New Hampshire	449,000	422,000	93.8	4.8	87,900	29,900	34.0	58,000	93,600	31.9	143,000	31.9	6,260	27,053	320	1.2
New Jersey	3,189,000	2,707,000	84.8	6.2	435,000	218,000	50.2	217,000	514,000	42.4	1,350,000	42.4	24,070	33,487	1,360	4.1
New Mexico	439,000	104,200	23.7	4.3	24,300	13,300	54.8	10,200	102,100	13.0	57,200	13.0	1,450	35,676	230	0.6
New York	10,954,000	8,620,700	78.7	7.7	784,000	440,000	54.6	344,000	997,000	44.2	4,835,000	44.2	209,000	215,597	8,530	4.0
North Carolina	2,518,000	539,000	21.4	5.1	105,700	49,200	31.3	56,500	493,000	10.0	250,500	10.0	9,330	252,725	6,560	2.6
North Dakota	834,000	283,000	33.9	4.9	57,750	42,300	73.3	15,400	170,000	24.9	207,000	24.9	12,080	74,360	32,340	43.0
Ohio	5,373,000	3,550,000	66.1	4.7	755,000	362,500	48.0	392,500	143,000	31.7	1,705,000	31.7	70,000	272,045	30,200	11.0
Oklahoma	2,522,000	602,000	23.9	4.8	125,300	60,900	48.6	64,400	526,000	11.6	13,730	11.6	13,730	190,192	4,250	2.2
Oregon	931,000	580,000	62.3	4.6	126,000	80,000	63.5	46,000	202,500	39.5	368,000	39.5	10,060	45,502	400	0.9
Pennsylvania	9,025,000	6,220,000	68.8	5.1	1,218,000	365,500	30.0	852,500	.770,000	20.6	1,863,000	20.6	135,500	219,295	36,400	16.6
Rhode Island	656,000	643,000	98.0	6.8	94,600	41,800	44.2	52,800	96,400	43.4	285,000	43.4	12,720	5,292	100	1.9
South Carolina	1,690,000	357,000	21.1	5.0	71,400	51,000	71.4	20,400	338,000	15.1	255,000	15.1	8,360	176,434	4,320	2.5
South Dakota	765,000	269,000	35.2	4.6	58,400	39,300	67.3	18,700	166,000	23.7	181,000	23.7	9,240	77,644	30,530	39.0
Tennessee	2,348,000	621,000	26.4	4.9	126,800	54,500	43.0	72,300	479,000	11.4	267,000	11.4	9,060	246,012	2,890	1.2
Texas	4,742,000	1,758,000	37.1	5.0	351,700	218,800	62.3	132,900	948,000	23.0	1,095,000	23.0	33,900	417,770	32,000	7.7
Utah	470,000	377,000	80.2	5.1	73,906	68,600	92.8	5,300	92,200	74.4	350,000	74.4	8,110	21,676	340	1.6
Vermont	368,000	254,000	69.1	4.6	55,230	36,320	65.8	18,910	80,000	45.2	167,000	49.2	11,620	32,709	490	1.5
Virginia	2,266,000	667,000	29.4	5.1	130,800	90,300	69.1	40,500	445,000	20.3	461,000	20.3	10,140	184,018	6,700	3.7
Washington	1,765,000	1,280,000	72.5	4.8	266,700	200,000	74.9	66,700	368,000	54.3	960,000	54.3	49,500	56,192	2,980	5.3
West Virginia	1,483,000	390,000	26.3	5.1	76,400	37,200	48.7	12,800	291,000	12.8	190,000	12.8	6,270	96,685	2,860	3.0
Wisconsin	2,598,000	1,471,000	56.7	5.0	294,500	147,700	50.2	146,800	519,000	28.4	738,000	28.4	47,000	177,127</td		

Why and How We Started Our Wireless Department

Working with the Local Radio Club and Wireless Customers Who Are Experts in Their Line and Know Exactly What They Want, We Were Able to Select a Profitable Stock of Radio Goods

By A. M. LITTLE

President Mohawk Electrical Supply Company, Syracuse, N. Y.

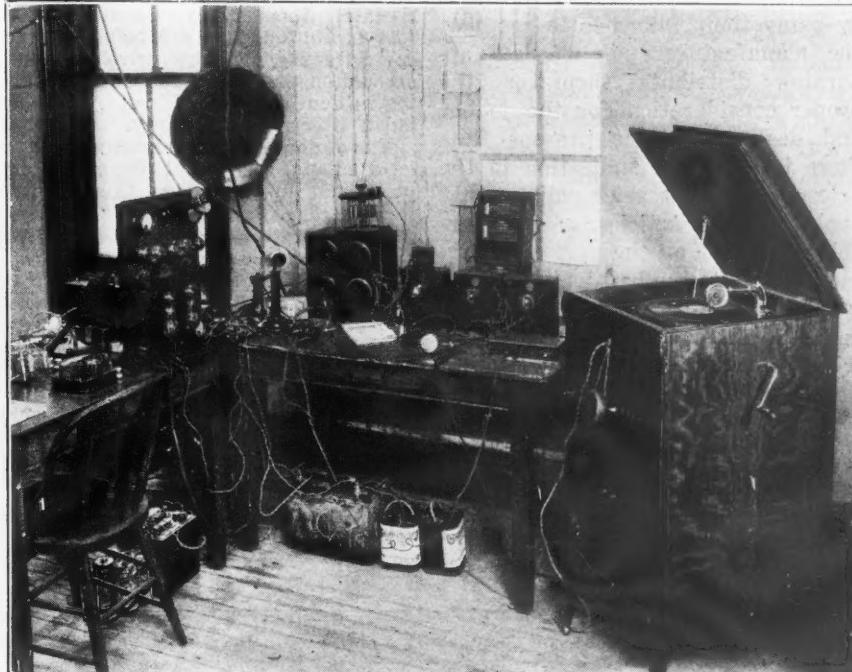
OUR reason for getting into the wireless business was our knowledge of the number of amateur stations reported throughout the country, the fact that they were not in use during the war, and the consequent further fact that there would be a general overhauling of these plants, now that the ban against them had been removed, resulting in an active demand for supplies. We had not, however, any definite information in our possession as to the number of these stations in Syracuse or surrounding territory, their location, who owned them or anything else regarding them.

But we were satisfied that the stations were here, that the demand for the material was here and that all there remained for us or any other jobber or dealer to do would be to get the material into stock, then notify the public that it was on hand, and build up the business in that way.

Our first step was to place the matter in charge of the men of our organization, have them read trade journals, books and other publications on the subject, and then make a trip among a number of the different manufacturers. As a result, a small but well selected representative stock was ordered.

THE FIRST MAILING LIST

Just about the time that our stock arrived we read in a local paper of the formation in Syracuse of the Syracuse Radio Club, with five members, and the published names of the members of this club was our first mailing list of prospects. To these names we wrote a letter announcing that we had wireless material in stock and that our intention was to "get into the game" more and more extensively. As a result we were surprised to receive a call from the



This radio telephone outfit in the radio department of the Mohawk Electrical Supply Company, Syracuse, N. Y., is only a small part of the stock carried.

president of the Radio Club and from a number of other enthusiasts in the city, expressing satisfaction over the fact that there was a concern in Syracuse from which they could secure their supplies.

We co-operated with the club in increasing its membership by giving it the use of our conference room in our own building, advertising the club in our store, and through our store sales force securing new members, and as a result the club today has a membership of approximately thirty.

Furthermore, we found that these wireless enthusiasts knew more about the business than we, so that the ordinary conditions prevailing in the business were reversed in this particular line, in that the customers know what they want and tell us what they want, so that we have been enabled with their knowledge and

advice to build up our stock in an intelligent manner and increase our own knowledge of the business.

At this time our stock of wireless apparatus represents 140 separate and distinct items, made up all the way from parts for use in making the different devices to the complete units, running into substantial amounts of money.

An active local business has been created, and it is our expectation to spread this activity throughout the state and develop a business in wireless apparatus through dealers which will be as staple and attractive as the other sections of our business.

RADIO GOODS SHOULD BE SOLD THROUGH ELECTRICAL TRADE

With the interest of the electrical jobbing business in mind and the belief that all electrical equipment of whatsoever nature should be dis-

tributed through jobbers, and through them to the consumer through dealers, we naturally advocate that all electrical jobbers and dealers investigate and get into this business as quickly as possible, so that from the start of its broadcast activity it may be deflected through the most natural channel, instead of being allowed to get into the hands of mail-order houses and other than regular electrical concerns qualified to give expert and intelligent electrical service.

Furthermore, considerable educational work should be done by jobbers, if they do get into the game, by using their influence to see that the manufacturers of wireless apparatus distribute them on the proper consideration for the jobber and dealer. At the present time there is a decided indication in the prices, and in the price policies that apply on these articles, of considerable ignorance on the part of manufacturers as to the best way in which to market their product, and the field is, therefore, ready for the electrical jobber to step into the situation and aid in guiding the industry along proper lines.

A helpful influence in getting our

radio department under way has been the interest displayed by the newspapers in this whole subject of "wireless." The public likes to read about radio and the wonders of receiving messages from far-distant points at local stations. The following is an article which appeared in the *Syracuse Journal* about the time our new wireless department was opened:

New Wireless Gets Messages of Many Lands

Mohawk Company's Apparatus Receives from Germany and Italy

Wireless messages from Germany, France, Rome, Italy, Sayville, L. I., and Arlington, Va., are being received in Syracuse by the wireless outfit erected on the roof of the Crouse Building in South Warren Street by the Mohawk Electrical Company.

The apparatus constructed by the local company is one of the most complete and up-to-date in this country. It was placed on the roof last week and the first messages were received Thursday evening.

The first flash received here was from Rome, Italy, calling the naval station at Annapolis. Andrew Dodds, former wireless operator in the United States Army, who is in charge of the wireless here, easily picked up the message. It was in Italian and in the Morse code. Although Dodds was unable to translate it into English, the message came

clear and easily distinguishable. Later in the evening the "NNA" call for the government station at Arlington was heard.

Flashes were heard from Germany, France and the large government post at Sayville.

Officials of the electrical company say that hundreds of Syracusans are taking up wireless. The demand for supplies for these outfits cannot be met.

In order that those interested may learn fully the details of construction and operation of the wireless, the Mohawk company erected the apparatus under special supervision of experts.

From post to post the outfit measures about 100 feet, being one of the largest in the state. It is fitted up with grounding wires, which is a safeguard against all lightning storms.

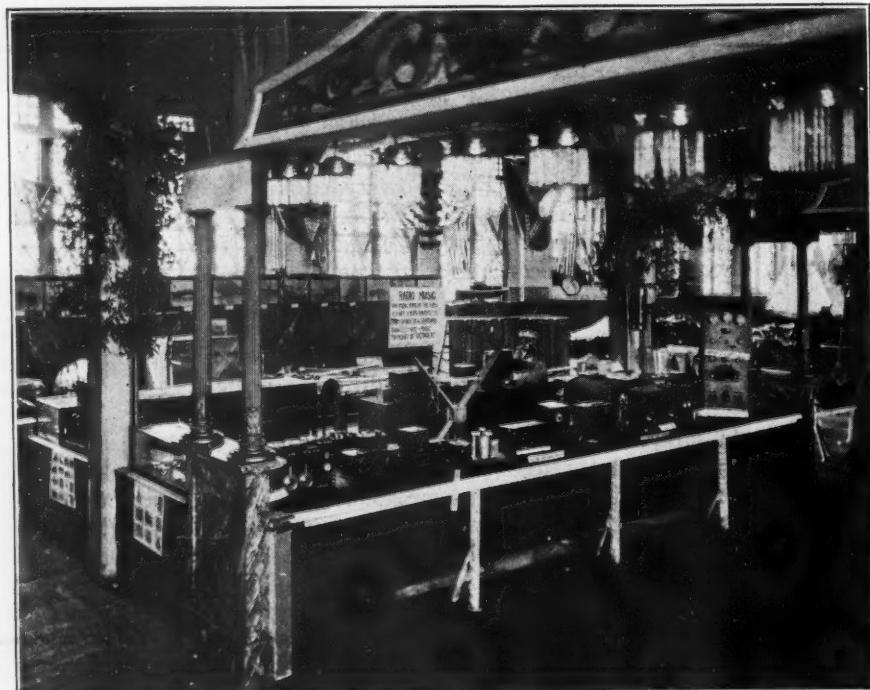
It has been erected so that it can be taken down at a moment's notice. Mr. Dodds says that messages can be sent from such an outfit as far as Honolulu and Japan. There is not a thing lacking in the construction of the wireless.

That Syracuse is entering into the wireless craze is manifested by the activities of the wireless club recently organized here. Many small outfits are in operation erected in the residential sections. These, however, cannot pick up messages from outside the state.

A short time ago Syracuse was criticised by government officials connected with the air service because there was no wireless station here. With wireless outfit they said that Syracuse should become one of the leading aviation centers in this part of the country.

Syracuse now has a wireless outfit of which it can feel proud, one of the best in the country.

A Radio Exhibit Will Attract the Crowds to Your Booth



Everybody is interested in radio telegraphy and telephony, and the electrical dealer who has a radio set connected up and in operation in his display booth at the local industrial show, food exhibit or county fair is bound to attract crowds to his exhibit. The picture shows the "wireless" display of the Atlantic Radio Company at Boston during the motor boat show this spring. Messages were received from ship and shore stations, and a wireless telephone reproduced victrola music transmitted from outside the building. Frank Wiggleworth is general manager and George Aspinwall is sales manager of the company.

Listen, Farmland Dealers! Weather by Wireless for Farmers

The Kansas Agricultural College has announced plans by which it will furnish the weather forecasts to every Kansas farmer by wireless telegraph. The farmer will be required to install an amateur wireless set with which to receive the forecast. These sets cost about \$35 each and can be operated by any person. They cannot be used for sending messages for any considerable distance, but they will receive the powerful messages of the big plants. The forecasts are to be sent out at 9:55 each morning under a standard code and on the wave length of 375 meters, short enough for any amateur set to take. This wave length is also long enough and the college plant is powerful enough so that the message will reach every point in the state. The forecast will be sent at the rate of 18 words a minute and then repeated at 10 words a minute.

The service is to be given free to every farmer, high school, or to any other person or institution having a wireless set.

Who Buys Radio Equipment?

Today There Are 700,000 Amateurs, Aged from Sixteen to Sixty, with Equipments Costing from \$5 to \$5,000, Besides the Commercial Stations on Shipboard, Plantations, Transmission Systems and Farms

By LOUIS GERARD PACENT*

THE American radio amateur is not an irresponsible minor, as pictured by many, but is usually a bright young type of American boy who is forever studying in order to keep up with the everlasting changes of the radio art.

In fact, a good majority of the so-called amateurs are almost professionals in the extent of their knowledge. Many are men of note, many are lawyers and many are electrical engineers or other engineers or business men of the highest character, who besides playing golf and having hobbies indulge in "radio," not alone as a hobby, but because they see that so much can be derived from it in the way of real information.

These amateurs' outfits run in value from \$5 or \$10, the beginning equipment of the average boy, up into the thousands of dollars. I know of one amateur "bug" who is right now considering the purchase of a \$7,500 station. And, in addition to the amateurs, there are the commercial buyers, for radio equipment is now coming into increasing use on shipboard, on plantations and farms, on power-transmission systems and between branches of large organizations.

DEPENDABILITY OF RADIO TELEGRAPH AND TELEPHONE

A few years ago "wireless" was very unreliable. The world war has changed things considerably, and today we are able to "receive" from transoceanic stations in any room on this side of the water by using a small loop, not more than a meter

square, without using the larger types of external antenna.

At the present time, also, there are more than thirty radio telephone stations in New York and vicinity, and at any minute of the day one can pick up the telephone receiver connected to the ordinary receiving set and hear some one talking in conversational language to some one else, or hear "Dardanella" or some other popular record being transmitted from a radio telephone station within a radius of 100 miles—all this without changing the old instruments whatever, but by simply adding to them to make them more sensitive and reliable.

The technical schools and colleges realize the fact that radio is a great coming field and most have devoted

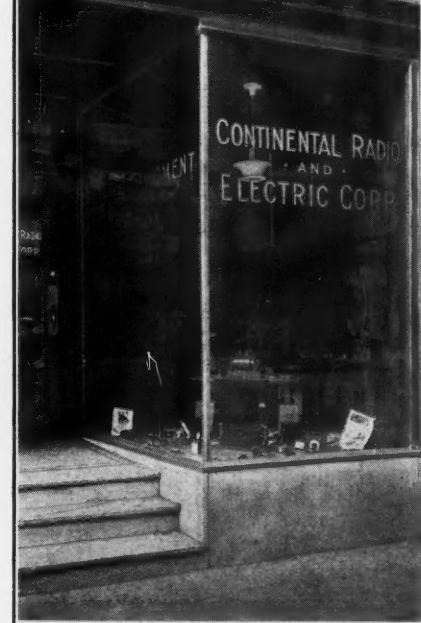
part of their physics courses to radio. Every graduating student knows something about radio, and, strange to say, a large percentage of these scientific students take up radio in an amateur way. Many secure positions on coastwise steamers and other vessels during the summer vacation and in that way gather considerable experience. They also make enough money to carry them on through school in the fall. A large number secure positions with radio and electrical companies who are live enough to see the prospects of this interesting art.

The average dealer who feels rather afraid to put in a stock of radio equipment because of not being familiar with the line should hire as his radio salesman some high school boy or technical school student who is desirous of making some extra money. This student can spend his time after school and on Saturdays in the store or office, and in that way take care of the particular radio department after one is formed, because the majority of sales will be made after school hours, when the amateurs themselves can spare the time to purchase their needs.

The dealer should not try to place a stock of radio apparatus on his shelves without having some one who understands this apparatus and who knows the radio parlance to an extent greater than the customer, otherwise his radio stock is almost sure to lie dormant and will eventually be returned to the manufacturer or his agent.

A STARTING RADIO STOCK OF \$500 TO \$1,000

The dealer starting into radio should invest between \$500 and \$1,000 in apparatus in order to secure a representative line. He should first locate a suitable young man and ask him to make up a list of representative apparatus, and then consult a reliable radio agent who



Boys of every age from sixteen to sixty are interested in wireless, and the electric shop which keeps a steady line of wireless devotees coming in is the shop which profits later from the sales of other electrical merchandise to those households which have some male member who is a full-fledged wireless "bug."

*Mr. Pacent, the writer of this article, is an experienced radio man, in the operating, manufacturing and selling fields of the business. For ten years he was consulting engineer for the Manhattan Electrical Supply Company, New York City, and manager of the company's wireless departments. At the present time he is vice-president of the Radio Club of America, a member of the American Institute of Electrical Engineers and of the Institute of Radio Engineers and president of the Pacent Electric Company.—EDITOR.

represents several manufacturers to suggest another list. After comparing both lists he can determine the apparatus to purchase.

The jobber should, of course, be in a position to sell to the dealer and it is required that he go into the radio game on a larger scale. He should, therefore, have the services of a young technical school graduate or the equivalent, who could start up the radio department on a small scale. Besides handling radio, such an employee could handle ignition supplies, telegraphic equipment and any other apparatus which requires some technical knowledge to sell. He could also be used as a

consulting expert and take care of all the technical questions of the company, together with technical disputes. It would also be his duty to help out the purchasers of general electrical equipment besides radio.

In order to have a representative line, the jobber would have to have a minimum of \$1,500 to \$3,000 of equipment on shelves. The proper equipment for this initial stock can be selected by the method above described, except that some careful study will have to be made of conditions in the territory.

The addition of radio lines will help to increase the other business of the jobber and dealer to a greater

extent, because radio amateurs purchase wire, switches, rheostats, sockets, insulators, etc., besides giving the particular dealer or jobber a considerable amount of advertising, more than could be accomplished by spending several thousands of dollars a year.

It is also well to remember that the young radio amateur of today will be the general solid customer of tomorrow. The older and semi-professional type of amateur is likely to buy all his electrical needs from one jobber or dealer if he finds that that particular company can supply his requirements for radio equipment.

Make a "Radio Department" of Your Wireless Goods



The desirability of locating the dealer's radio stock off by itself into a special "department" of the store or a special section of the retail counter, is emphasized in the advice given by nearly every dealer now selling wireless apparatus. Assembled all together in this way, the radio stock makes a better appearance and attracts the interest of the amateur and the commercial buyer. The picture shows how the Continental Radio and Electrical Corporation, New York City, dealer in electrical merchandise and wireless

supplies, worked out the problem of its store layout. The right-hand half of the store is given over to radio goods, while the left-hand side stocks a standard line of electrical devices. The legend indicates how the front and rear cases on the wireless side contain receiving and transmitting equipment respectively. Standard radio articles are shown on the tops of the cases. The wall shelves are divided vertically by manufacturers, each one being allotted one or more of the sections.

If I Were Handling Wireless Devices—

BY COLIN CHESEBRO

If I were an electrical dealer and made a specialty of selling radio apparatus to amateurs I would install an up-to-date receiving station, changing it from time to time as the new apparatus came out, and would make it my business to receive the correct time via wireless from a government station every noon.

I would arrange a display in my front window, explaining how the time signals were received and then flash by means of an electric light in the window the exact time as it came in.

Every Saturday evening I would flash time to the surrounding country. A high point near my store would be the best place to operate from, some large building or tower. With four large automobile headlights, each facing a different direction, the powerful rays could be sent for miles. I would flash the time like this:

Beginning at 8:55, I would send the time signals for five minutes, flashing every second as a dot, omitting the twenty-ninth second of each minute, the last five seconds of each of the first four minutes, and finally the last ten seconds of the last minute; the 9 p.m. signal would be a dash.

FOLLOWING THE GOVERNMENT CODE

This corresponds to the way wireless signals are sent from several radio stations at noon and at 10 p.m. (The Great Lakes, Ill., station radios the signals at 11 a.m., Sundays and holidays excepted.) The

exact characteristics of the time signals transmitted from the station nearest my store would be found by consulting the local Department of Commerce or Navy officials.

It wouldn't be long, I think, before every clock and watch for miles around would be set by this time, and I would add to the advertising value of this stunt by doing this:

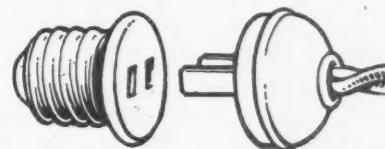
I would distribute cards, containing the radio code, among boys and girls and every week hold a contest offering a prize to the first one coming to the store with a correct copy of a message flashed from the tower. The message, of course, would be worded as an advertisement for my store.

Have a "Radio Department"—Put a High School Boy in Charge

"The electrical dealer who is planning to go into the sale of radio apparatus should establish a radio department in his store. Part of the store space, or at least a section of his counter, should be set aside for the radio stock," advises H. W. Dunk, commercial manager of the International Radio Telegraph Company, New York City.

"If the store is a large one, at least a section can be reserved for the sale of wireless goods. If the store is small, part of the counter space and wall case can be set aside for the radio department. In such a department a complete receiving outfit should be set up, ready for operation. This is not difficult, for an antenna leading down to the apparatus can be installed very simply so that custom-

The Standard Separable Plug with Parallel Blades



Is the type that was recommended as standard by the standardization committee of the National Electric Light Association. The majority of plugs now made are already of this type. Use this plug.

ers coming into the store can test out the actual service and operation of any piece of apparatus offered for sale.

"Another difficulty which may at first seem discouraging in connection with a department of this kind is the fact that experienced sales help is not always available. The answer to such an objection is that in practically any town, village or city of the United States there are radio enthusiasts. Usually the local high school or even grammar school has a radio club. You should have no difficulty in locating among your customers and friends and surely among the younger element of the town the high school boy who would be willing to take charge of this department for you.

HIGH SCHOOL BOY AFTER SCHOOL HOURS

"At first this boy or young man's time can be used on a part-time basis—after school on weekdays and the entire day on holidays and Saturdays. A strong point to consider in using the services of a salesman of this description is that his acquaintance with the radio enthusiasts in town will undoubtedly be something to capitalize on to bring customers into your store. Later you can either employ the part-time salesman described above on a whole-time basis or secure some one who will be able to devote his entire time to this particular part of the business.

"In a department such as is described—depending of course upon the size of the town in which your store is located—you can turn over a monthly business of anywhere from \$300 to \$1,000. It not only will function as a distinctly profitable department on its own merits but will have the additional advantage of bringing customers to your store who would ordinarily buy their goods at other places."

TIME SIGNALS BY RADIO

According to information received under date of October 31, 1919, from the Director of Naval Communications time signals are being transmitted by the U. S. naval radio stations as follows:

Station	Call Letters	Wave Length (Meters)	When Sent
Washington.....	NAA	2,500	Daily at 11.55 a.m. to noon, and 9.55 to 10 p.m., standard time, 75th meridian.
Annapolis.....	NSS	*17,000	Daily at 11.55 a.m. to noon, and 9.55 to 10 p.m., standard time, 75th meridian.
Key West.....	NAR	1,500	Daily at 11.55 a.m. to noon, standard time, 75th meridian.
New Orleans.....	NAT	1,000	Daily at 11.55 a.m. to noon, standard time, 75th meridian.
Balboa, Panama.....	NBA	*7,000	Daily at 4.55 to 5 a.m., and 12.55 to 1 p.m., standard time, 75th meridian.
Colon, Panama.....	NAX	*1,500	Daily at 4.55 to 5 a.m., and 12.55 to 1 p.m., standard time, 75th meridian.
Cavite, P. I.....	NPO	*952	Daily at 10.55 to 11 a.m., and 9.55 to 10 p.m., standard time, 120th meridian, east.
North Head, Wash.....	NPE	*5,000	Daily at 11.55 a.m. to noon, standard time, 120th meridian, west.
Eureka, Cal.....	NPW	2,000	Daily at 11.55 a.m. to noon, standard time, 120th meridian, west.
Point Arguello, Cal....	NPK	1,512	Daily except Sundays and holidays at 11.55 a.m. to noon, standard time, 120th meridian, west.
San Diego, Cal.....	NPL	*9,800	Daily except Sundays and holidays at 11.55 a.m. to noon, standard time, 120th meridian, west.
San Francisco, Cal....	NPH	*4,800	Daily at 11.55 a.m. to noon, standard time, 120th meridian, west.
Great Lakes, Ill.....	NAJ	1,512	Daily except Sundays and holidays at 10.55 a.m. to 11 a.m., standard time, 90th meridian.
Pearl Harbor, T. H.....	NPM	*11,200	Daily at 180th meridian mean noon. *Arc. +600. +spark.

"Electrical Household Preferred"

Says Annie the Cook

How Newspaper Managers Are Helping Electrical Dealers to Sell More Appliances Through Suggestions to Advertisers in Their "Want Ad" Sections

BY LIDDA KAY

NO WOMAN who owns her own home today flatters herself that she is mistress of it. If she forgets for a moment, her slip is quickly and ruthlessly pinioned by the new tyrant the war has enthroned in every kitchen of the land. Therefore, when Annie the Cook rises to decree that she can no longer make her abode in a home without the electrical conveniences which her station demands, what is a mere housewife to do?

This is no dream of the future, to delight the electrical man's heart. Recently in the "Situations Wanted" columns of the New York *Tribune* there appeared the following significant advertisement: "Houseworker—Neat, efficient young woman; excellent references; *home equipped with electrical appliances preferred; \$75.*" Other newspapers are following suit, and may the day be not far distant when "electricity" is as commonplace a word in the "want ad" columns as it now is in the real estate columns!

Annie the Cook, in other words, is at last having her say about the conditions and tools she is to work with, and if she doesn't decide on the electrical way it is only because of ignorance, which time and education will cure. But, given the power, Annie will demand the best; she can be counted on for that. "Master's stenographer has all the conveniences and labor savers he can buy," is the bomb she will throw. "Why not I?" If she has come from a home electrically equipped to the old, gas-lighted kind, her return to the old-fashioned sad iron, broom and washboard will be short lived. If she is not yet familiar with electrical labor savers, but is nevertheless dissatisfied, many a housewife today is tremulously initiating her into the mysteries of the electric washer and suction cleaner.

Yes, she—Annie the Cook—is the greatest positive ally the electrical man has in the home today. Think of the tremendous influence which an army of household workers, trained in the uses of electricity in the home

and with the power to enforce their demands, can exert on the still un-electrified households of the country! The woman with the unwired house will find herself entirely "out of it" when there is a choice between herself and another woman with a wired house. On the one hand, she can offer only the hand iron, the broom, the washboard and coal stove; on the other are arrayed the electric

proached. Most of the classified advertisements in a local newspaper are taken directly over the counter in the newspaper office or over the telephone. This gives an opportunity for the question to be asked, "Do you prefer a home electrically equipped?" and, if the answer is affirmative, "Why not mention it in your ad and get a more desirable place?" Most newspapers will be glad to arrange for this little service, if the dealer tactfully explains that it will not only tend to increase his electrical sales but will also rouse interest in the newspaper on the part of other electrical dealers who are not yet advertisers. Best of all, from the newspaper's standpoint, it will "tie in" very effectually with the electrical advertising carried.

Another way of accomplishing this end is to approach the employment agencies and persuade them to have their patrons make the desired specification in their advertisements. The argument in this case is that the service will make better satisfied patrons and draw a higher type of replies. Several New York agencies have already been won over to the suggestion.

And, by the same token, the "Help Wanted" columns of the newspaper should be "electrified." Many a housewife wishing to advertise for a cook or housemaid will welcome the suggestion that she mention, "home fully equipped with electrical labor-saving devices." She knows it will attract a higher type of houseworker and will insure her against having to break in a girl unfamiliar with electrical equipment. And, of course, it will be an object lesson to other housewives scanning the same column whose homes are unwired!

Few household workers, after becoming familiar with electrical labor savers, will willingly accept a position in an unwired home. Why not have them specify this in their ads, as in the specimen shown above? Your newspaper will willingly co-operate—the New York *Tribune* is doing it—but it's up to the electrical dealer to make it see why it should do this.

range, iron, washer and cleaner, and Annie, standing between, makes quick choice.

Our housewife, we imagine, will do some hard thinking after this, and before many moons have passed will decide that the muss and inconvenience of having the old house wired aren't nearly so bad as the muss and inconvenience of a permanently maidless household!

GET THE CLASSIFIED ADVERTISING MANAGER INTERESTED

That is the real significance of the "Situation Wanted" advertisement which specifies "home equipped with electrical appliances preferred." It should open possibilities to every electrical dealer in the country, should awaken his desire to have at least 80 per cent of the houseworkers seeking positions specify "electrical homes preferred" in their advertisements.

Nor is this ambition difficult of accomplishment, if rightly ap-

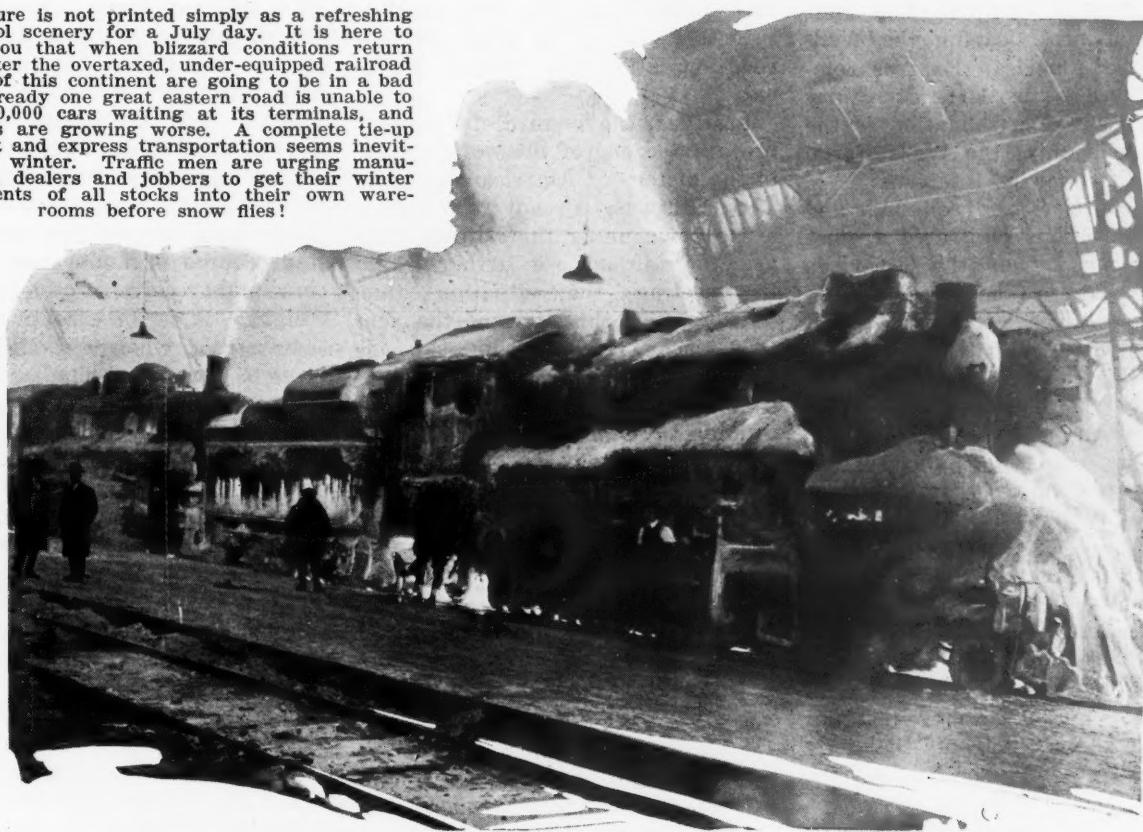
Use Your Cash Register to Record Your Daily Appliance Sales

A Seattle dealer is making a novel use of his cash register, by having it record not only the amount of each sale but what kind it was. On his register he has stops for the following classifications: Fixtures, portables, heating devices, sewing machines, washing machines, vacuum cleaners, Edison Mazda lamps, auto Mazda lamps, "miscellaneous," "charge paid out," and "received on account." In this way, he is enabled to ascertain daily full details in regard to his store sales.

Household Assistant—general worker, experienced, will take entire charge of housework, including cooking and laundry, in home equipped with electrical household appliances. \$65 month. Mary Brown, 101-W Daily News.



This picture is not printed simply as a refreshing bit of cool scenery for a July day. It is here to remind you that when blizzard conditions return next winter the overtaxed, under-equipped railroad systems of this continent are going to be in a bad way. Already one great eastern road is unable to handle 30,000 cars waiting at its terminals, and conditions are growing worse. A complete tie-up of freight and express transportation seems inevitable this winter. Traffic men are urging manufacturers, dealers and jobbers to get their winter requirements of all stocks into their own warehouses before snow flies!



Act Now to Guard Your Stocks Against Another

Railroad Tie-up Next Winter

Traffic Men Recognizing Present Railroad Equipment Shortage Predict Serious Trouble with First Bad Weather—Jobbers, Manufacturers and Dealers Urged to Hurry Now and Get Into Their Own Stockrooms, Before Snow Flies, Full Winter Requirements of All Products Depending on Freight and Express Shipments

By G. E. CLARK

Traffic Manager Westinghouse Lamp Company, Bloomfield, N. J.

PRIOR to 1917 serious delays and congestion on the railroads of the United States were very occasional happenings, usually due to some unforeseen cause, and almost invariably quickly adjusted.

Commencing, however, with the fall of 1917, as a result of war conditions, congestions and delays of all kinds fell upon the carriers of the country, nor have the roads been fully relieved at any time since that date, with the probable exception of the early spring of 1919.

The electrical interests, particularly agents and jobbers, are perhaps more interested in express delays than in freight, although invariably a failure of the express

company properly to function can be traced directly to the railroad companies, for railroad strikes, congestion of ports, severe winter weather, all have a decided bearing on the express situation. In addition to this, the railroad companies own and control practically all of the express equipment, and the failure of the express company to render better service has been due primarily to its inability to obtain cars for forwarding and handling express matter. Consequently, the express terminals become very much congested, and although they will order or requisition from the railroad company a given number of cars, these orders are generally filled to only about 50 per

cent. This has been, and still is, the condition, and is the primary cause for the inability of the express company to render service.

When the United States Railroad Administration took over the operation of the express service, consolidating the various express companies, there was undoubtedly a remarkable opportunity for economy and conservation of equipment. It is my opinion that had not this consolidation been effected the service would have been far worse than that which we experienced in the past. The old Adams Express Company had practically broken down and ceased to perform its work efficiently before the consolidation. The United

States Express Company had gone out of business, leaving the Wells Fargo and American Express companies the only two large companies left. Since the consolidation of the express companies the Wells Fargo has sold its financial interests.

Much criticism has been made and serious objections registered against the continuation of the American Railway Express Company operating for the so-called companies which have ceased to operate. The shippers in this country have practically no choice left. There is only one express company, and no one can compel a new company to start operations, so the only choice left is to make the best of the situation and accept in good faith the statements of the officials of the American Railway Express Company, their desire to render 100 per cent service to the public. The personnel of the officials of the American Railway Express Company is high; we believe they are honest in their statements that it is their desire to give the best service possible, and we believe they are using every effort to give this service, but with inadequate equipment, primarily cars, restoration of service would naturally be very slow. It takes years to build an adequate supply of equipment, and the public must necessarily realize that this service cannot be improved immediately.

We must take into consideration the demands that were made on the express company for service, due to embargoes on the railroads, and the inability of shippers to have their material moved by freight. Practically every shipper in the country turned to the express company to move his material by express (rates and charges being a side issue). Really, it is somewhat surprising that the express company functioned as well as it has.

RAILROADS NEED 250,000 FREIGHT CARS, 4,000 LOCOMOTIVES

But all business is now facing a fresh difficulty as a result of the car shortage on the railroads. This condition of car shortage may produce a general tie-up this winter so severe that the troubles of last season will seem slight in comparison.

Today the railroads of the United States need 250,000 freight cars, 4,000 locomotives and 10,000 passenger cars and Pullmans. With this essential equipment lacking, there is a serious menace to the nation's busi-

ness, aside from the inconvenience sure to be caused by delays in railroad operation and freight movement.

Last year the blizzard of February precipitated one of the worst tie-ups in the history of American business. The railroads, already overloaded, broke down under the strain. This year the railroads are further behind in meeting the situation than they were at this time of the year 1919. The New Haven road, for example, was in June unable to handle 30,000 cars offered it at its terminals. Other roads are in the same shape, and the situation is growing worse instead of better. Unless we have an abnormally light and open winter there is bound to result one of the worst tie-ups industry has ever known with the coming of snow and winter sleet.

GET STOCKS INTO STOREROOMS DURING SUMMER AND FALL

To safeguard against this imminent situation, traffic men throughout the country are urging manufacturers, jobbers and dealers to get their stocks of raw and manufactured products into their storerooms before snow flies. We are hastening shipments of all kinds during the months when good traffic conditions are assured, for delay in getting stocks into storerooms and warehouses is bound to be paid for in serious delays later on.

After three years of practical disorganization, inefficient help, inadequate equipment, is it not surprising that express and railroad service was not demoralized to a greater extent than it has been? Indications are that the fundamental trend is now toward improvement, although a slow and tedious operation. It means large purchases of equipment, and probably change in the personnel of the employees of the express company to the extent of 40 per cent to 50 per cent, weeding out the inefficient, careless and dishonest employees and replacing them with more reliable men. We believe the express company is keenly alive to the task ahead of it.

The shippers of the country can aid this movement materially by following these three suggestions:

Better packing, better marking, better records.

It is astonishing to find the number of claims entered for material which was delivered within a reasonable time. As far as it affects the

Westinghouse Lamp Company, we are obliged to cancel about 50 per cent of our claims for this reason. How much better service could be expected from the express company if we functioned properly and did not call upon them to perform a task which we should have done ourselves.

The split delivery has been a constant source of annoyance to shippers and receivers of express or freight. It is an exception, rather than a rule, when a complete shipment of any large number of packages is delivered intact. This is largely due to congestion at terminals and stations, their inability to sort out packages and complete shipments. A car may be loaded full and contain only part of a shipment for some consignee, the balance going forward in the next car. Careful checking and recording of incoming shipments will take care of this.

The express rates have not been increased in proportion to freight rates. There is always a more or less fixed relation between the express rates and freight rates, and we can expect a rather drastic increase in express rates in the near future. The express company has been granted two 10 per cent increases in the past, but we must also take into consideration the fact that in each of these instances the United States Railroad Administration received "fifty-fifty."

HANDLING CLAIMS

Another very annoying feature to the shippers and consignees of incandescent lamps is the claim situation. This has materially improved the past year. Incandescent lamp interests have had many conferences with the express people regarding this matter. All did not result to our entire satisfaction, yet we feel much progress has been made. The express company must pay for failure to deliver packages. This also holds true of damaged lamps, particularly where the damage is evident, at the time of delivery.

Irritation usually results from what is termed "concealed damage." Very often this is not actually concealed damage, but the consignee in his haste signs for a given shipment in good order, where a little observation would have shown him that the packages were not in good order. A notation on the receipt would have made the case clear and the claim paid without delay. Occasionally the

package is in good order, but the condition of the lamps indicates this package has had extremely rough handling. Damages for this can be collected, provided the express company be notified within a reasonable time after delivery of this package and given an opportunity to inspect the damage, but it is impossible to collect damages from any carrier where a clear receipt is given and the material carried in a stockroom for weeks or months and later discovered.

The officials of the American Railway Express Company were invited to and attended a test made of the packing of incandescent lamps and what could be expected under normal handling. This test was made in one of the large revolving drums, packages being subjected to from twenty-five to fifty falls, from 2 to 10 ft., falling on irregular projections, and in all positions. As a result of this test, the general claim department of the American Railway Express Company has been somewhat more liberal in its adjustment of claims. We have heard frequent complaints that claim agents were declining to pay any such claims.

CLAIM AGENTS MAKE OWN INTERPRETATIONS

As I recall, there are 105 claim agents scattered throughout the United States. This means 105 individuals, each zealous for the interests of the American Railway Express Company, many of them making their own interpretations of rules, and some of them in conflict with the rules and classification of the express company. This can be adjusted by taking up with the general office in New York, or by one of our agents or jobbers through this department, any of these questionable claims. The express company is not paying 100 per cent on broken filaments, and it is doubtful if it ever will, but we are getting much better service and receiving better attention than ever before.

The general thought expressed here is not intended as a brief for the officials of the express company. It has much work to do, as have also the shipper and consignee. But by all getting together and patiently working out the problems which come up from time to time we believe that within a period of a year and a half or two years we can expect to secure nearly 100 per cent express service.

Chicago Central Station Company Places Its Credit at Disposal of Dealers

AT A TIME when banks and investment companies are raising interest rates and telling electrical contractor-dealers to cut down on their time-payment paper the Commonwealth Edison Company of Chicago has agreed to discount the time-payment contracts of any electrical contractor-dealer in Chicago at a cost of only 4 per cent for six months and 6 per cent for twelve months. It is just possible that credit may get so tight that the utility may have to withdraw this offer temporarily, but except for such an extreme contingency it is the intention of the company to give the plan an extensive trial.

During the summer months the central station is stimulating business by advertising that the people of Chicago can go into any electrical retail store in the city and buy such devices as irons, toasters and pot-type percolators and grills for \$1 down. The balance is usually divided over a six-month period, but the contractor-dealer gets his money immediately from the Commonwealth Edison Company, which also collects all the deferred payments. During the summer campaign last year the company and 117 dealers sold 10,326

Annual Summer Sale of Electrical Household Helps



IRONS
TOASTERS
PERCOLATORS
GRILLS
on easy
Monthly
Payments

Enjoy Cool
Comfort
This Summer
At Small
Cost

Arrangements have been made so that Electric Light Customers may obtain these Electrical Household Helps for \$1.00 down—balance monthly on their Electric Light Bills.

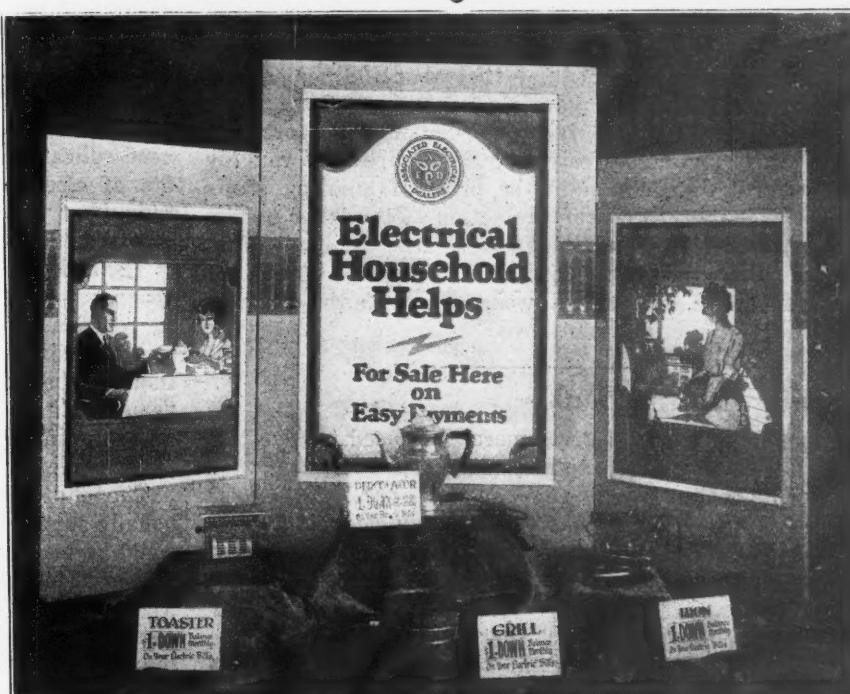
See Display of Electrical Household Helps

At Your Nearest Electrical Dealer's

Co-operative advertisement run by Chicago central station company announcing its annual sale of electrical household helps.

irons, 271 toasters and 414 percolators in less than three months.

Attractive window displays play an important part in the campaign. The Commonwealth Edison Company supplies posters and frames upon which to mount them, as shown in the accompanying illustration.



Window trim used in Chicago co-operative household help sale. A portable framework similar to the one shown in the background is supplied free of charge to every electrical contractor-dealer in Chicago by the Commonwealth Edison Company for use in connection with the sale described in the advertisement. The lighting company also distributes the posters shown on the framework. Note the cord which runs vertically down each side of the side posters and horizontally across the top and bottom of the center posters to hold the posters in position.

Electrical Merchandising

The Monthly Magazine of the Electrical Trade

believes that:

1. Goods must be sold and business done at a profit.
2. Business comes to the man who goes after it.
3. Central stations must compete with other retailers at a profit.
4. The contractor-dealer must go after business if he expects to get what he deserves.
5. Discounts in the chain from manufacturer to jobber to dealer must be so adjusted that every man who has a function gets paid for it.
6. It is to the central station's interest to encourage and foster retail sales by every retail electrical dealer in its community.
7. Electrical contractor-dealers should cease selling merely wiring jobs or appliances, and sell an electrical service.
8. The electrical merchant—central-station man, as well as contractor-dealer—must analyze his business, know his costs, and adopt merchandising methods in both buying and selling.
9. The electrical trade must think and practice "Quality Electrical Work," using quality materials. This means that owners, architects and builders must be shown the advantages of equipping houses throughout with convenience outlets; that plugs and receptacles must be standardized; that fixtures should be equipped with standard-plug connections; that lighting outlets and switches be located with regard to the principles of good illumination and convenience; and that meter-boards be so located that meters can be read without entering the house.
10. It is the duty of every electrical man to help educate the public to use electricity and electrical devices that lighten the labor of the home, office, shop and factory. To this end we urge local newspaper advertising on the part of every dealer handling electrical appliances, and that advertising departments of local newspapers be made part of the local electrical industry.

What Makes the Price

JUST now all business men are experiencing a period of difficult conditions. Prices are exceedingly high. Material is scarce and slow in coming. Labor is hard to get and harder yet to hold and handle. Money is tight and collections are not easy. Many are disturbed over the uncertainties involved and anxious for fear that prices will decline and leave them long on materials on hand and on order.

There is one interesting fact that should be kept in mind in thinking of all this—that about 98 per cent of the cost of building materials, including electrical, is made up of the three factors of labor, transportation and coal. The actual raw material figures but roughly 2 per cent. Reduction in the price of building stuffs must wait therefore upon the action of the labor unions and the railways and the mines. And we know that these things will come slowly. We, therefore, need not fear surprises. Prices will wear off only as the elements that make up cost come down.

Trade with the Bank

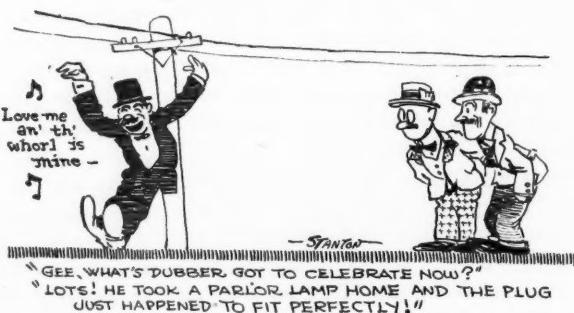
ONE of America's great merchants used to give this bit of sage advice to the smaller local retailers with whom he dealt. He said: "When times are bad, do these three things—collect your money; pay your bills; use the bank." It is a wise injunction for electrical men today, and the last thought should perhaps be listed first.

Men are too apt to feel that they must work alone financially and look upon the bank as the strong box where they keep their coin. But this is no more logical than that the householder should feel impelled to wire his own house. The function of the electrical man is to do electrical work and sell electrical things. The function of the bank is not just to safeguard your money,

but to safeguard you, by furnishing extra money when you need it.

Make daily use of these three good rules therefore:
Don't scatter all your resources among your customers.

Play fair with manufacturer and jobber.
Trade with the bank.



Inconvenience Outlets!

WE HAVE MANAGED to standardize on a lamp socket which makes it possible for lamps to be manufactured on a national scale, and for the public in consequence to move from one region of the country to the other without scrapping all their electrical possessions, but base receptacles are still a matter of taste and inconvenience. The campaign for more convenience outlets would find a wider popularity if there were not so many inconveniences attached to their lack of uniformity.

Price Cards in the Window?

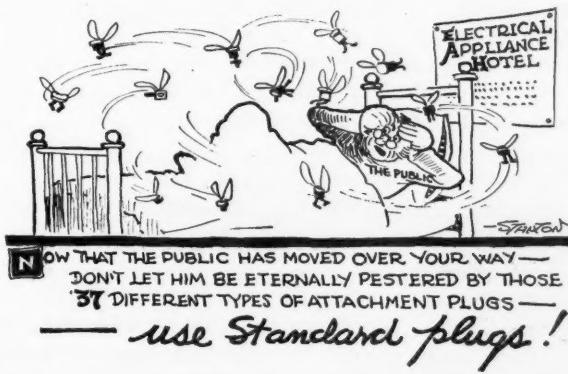
A TALK on electrical labor-saving devices made before a woman's club in San Francisco the other day brought forth a discussion on the likes and dislikes of the woman customer. Among other topics, the ancient subject of whether prices should be mentioned in advertisements and in the window came up, and the women were unanimous in their preference. "It may be that we need education through advertising regarding the benefits of electrical conveniences," was the general attitude, "but we do want to see prices attached to window displays."

The ordinary woman, it was pointed out, likes to look at pretty windows, but she does not consider articles in relation to herself until she knows that they will come within her means. She does not like to go in to inquire about an article which she may later find she "cannot afford." Her general idea of electrical appliances is that they are most desirable to possess but very expensive.

The club women testified, however, that they were usually surprised to find that the cost was so small—and could be met by monthly installments. The woman who is most interested in electrical conveniences is the woman who does her own household work—and she is generally the woman who must consider the money factor of her purchase most closely. In these days of the high cost of living, the supposition is that the desired object is extremely expensive—and according to the women themselves, it behooves the dealer to remove that impression, if he would have his window displays bring in customers from the street.

Team Work on the Money End

NEARLY everybody in the electrical trade seems to have overlooked an opportunity for practical co-operation between the contractor-dealer and the central electrical station—an opportunity for team work on the money end. As everybody knows, one of the crying needs of the contractor-dealer is for better bookkeeping. A standard system has been designed, approved and adopted, and is being sold, but many a dealer and contractor needs a bookkeeper and cannot afford one; or because of the scarcity of labor is unable to hire one. That is the situation from the standpoint of the retailer. On the other side, many a central station which has only one office, especially in a large city, at which all complaints, and monthly payments and applications for current are made, is either wishing it had more points of contact with its customers or is planning to open branch offices of its own. Now why not get together? Cannot the central station pick out a dependable contractor-dealer here and there throughout its territory, and arrange for the employment of, say, a responsible young woman, to act as a bookkeeper-cashier, paid jointly by the retailer and by the central-station? The young woman could keep the books of the contractor-dealer and also receive the applications for current, complaints and monthly payments of the central station customers. Of course this suggestion sounds a bit out of the ordinary—but stranger things have happened, and will continue to happen in the electrical industry. Think it over.



How 110 Volts Came to Be Selected

BACK in 1879, when Edison was at work on his early dynamo machines, there was a "standard voltage" of 110 volts, because there was little else for multiple-circuit operation on a commercial scale.

"Mr. Edison originally planned to have 100 volts at his lamps," says W. J. Hammer, one of his early associates, now president of the Association of Edison Pioneers. "One hundred volts was a round figure and seemed to be just about the proper potential."

"We'll have 100 volts at the lamps," concluded Mr. Edison, "and to allow for 10 per cent voltage drop in the line we'll make the machine pressure 110 volts."

And so the world's standard pressure of 110 volts came into existence.

In the early days of the industry line-drop was a problem and the inaccuracies of lamp manufacture had to be provided for. A range of voltages from 103 to 120 volts was desirable. To-day the pressure at any point on a system can be regulated within three volts of a standard voltage.

General acceptance of a standard voltage—110 volts

—would save the industry, the manufacturers, the jobbers, the retail trade and the public thousands of dollars which now must be spent in duplicate stocks of lamps and appliances. It goes hand in hand with standard plugs.

Standing in Well at the Store

THREE is a salesman in Chicago whose commissions on washing machines, vacuum cleaners and the like have been running around \$165 a week for several weeks. "How does he do it?" every one asks when they hear of his success.

The answer is that he works at any hour of the day or night when any one wants to buy, and in addition to this he knows how to stand in well at the store. Being an outside salesmen he does not have time to hang around down town to pick up tips on prospective buyers. What he can do and does, though, is to keep on friendly terms with all of the clerks in his store. "A box of candy here and a few cigars there" in his own organization did a world of good, he said, when he was starting in. Friendships thus started are now paying dividends in the shape of tips about prospects that the store clerks cannot sell but that could be handled by an outside salesman with persistence.

Who Will Accept This Responsibility?

CONTRACTOR-DEALERS, you should sell higher intensity lighting to all your existing customers. That is the way to make money." Such is the chorus in which manufacturers, central stations and engineers join under the present conditions in the building industry.

"Very well," replies the contractor-dealer. "How high shall the intensity be? If some association or other body of national scope will only accept the responsibility of saying how high the intensity should be for certain specific trades and for specific operations in various factories I can take the data and make sales. It is of great value to have such corroborative data from a disinterested source. For instance, it is now an easy matter to justify estimates and percentages of overhead by referring any customer who complains to the data issued by the Electrical Estimators' Association of Chicago. The results of their studies are accepted without argument. They took the responsibility for issuing data that were as near correct as they could make them."

Who will take the responsibility for data on higher intensity lighting? The Illuminating Engineering Society has a committee on the subject, but members of the society feel that a report issued by them must be at least 99 per cent accurate before it can be published. The contractor-dealer would rather have more speed and a close approximation than ultra-accuracy. What is needed is some association which can logically set down fair approximate values for the trade to work by. Let them be as nearly correct as it is possible for them to be under the present knowledge of lighting. Let the association have the bigness to acknowledge later if necessary that some of them need changing. Perhaps the commercial section of the National Electric Light Association would accept this job. One attempt to do this is the code of industrial lighting recently issued by the Industrial Commission of Ohio. Certainly somebody must accept this important responsibility.



Ideas for the Man Who Sells



Sells 150 Washers in Town of 3,500

In the last two years the Pinson Electric Company of Preston, Idaho, has sold 150 washing machines to the population of 3,500 which it serves. How it happened is told by Charles E. Pinson, manager of the company, in the following words:

"The first washing machine order I ever gave a salesman was for just one machine. It was some little time before I sold this first machine. But when I did place it I followed it right up.

"I inquired as to when this customer was going to wash, and picked up two prospective buyers and took them to see the machine in operation under load. I succeeded in selling both parties. Up to this time I had only sold about three electric washers in one and a half years.

"I made myself believe that the machine I was selling was the only machine for the average home. I commenced to advertise in our local paper. In the meantime I succeeded

Plans, Schemes and Methods Gathered from Successful Selling Experience to Increase the Sale of Electrical Appliances

in getting the contract for wiring a small town with about twenty residences. By going after the business I dropped off about fourteen Clarindas to these twenty new customers.

"Of course I didn't feel at all bad about that, so I told the people in our local paper what I had done. Besides this, I would occasionally place a machine in the car and go out after the business, leaving folders and other literature at the places where I called. I also flooded the public schools with blotters, and ran a slide in the moving picture show.

"Pretty soon I had the people coming my way. They would come into the store and ask, 'Where is that famous washer I have heard so much about?' The result has been the sale of about 150 machines in approximately two years, and I am still putting them out."

It Is the Dealers' Recommendations that Create Demand

"The greatest consumer demand creating force in America is goods in the hands of satisfied customers," declared H. A. Lewis, advertising director McGraw-Hill Electrical Trio, before the Technical Publicity Association, New York City.

"The second greatest demand creating force for merchandise is the recommendation of an established and favorably known dealer.

"As individuals we have all been human beings for some time before we became readers of advertisements and, as human beings, the favorable recommendation of some one whose judgment we have learned to accept becomes our unconscious buying guide. If we reason the matter out, we assume that a dealer knows good merchandise or else he could not stay in business. Therefore, it is quite logical to accept his judgment."

Weekly Payments for Electrical Appliance Salesmen

BY GEORGE C. FINCH

Paying salesmen weekly has been found an effective way of keeping them up to their highest pitch of service by one of the large electrical stores of California. Monthly averages usually run pretty high and a salesman may even loaf on the job for a week without the fact being particularly obvious in a monthly return. No such neglect of business can be concealed in a weekly statement, however, and as the various salesmen compare notes on weekly returns the man who has taken a vacation has the matter brought sharply home to him.

The method likewise has other advantages. There is no necessity of furnishing salesmen with an expense account. With an interval of a month between payments, even a large return will dwindle away, until it becomes necessary for the firm to finance the remainder of the month's sales. Another aspect of the situa-



"I made myself believe that the machine I was selling was the only machine for the average home," says Charles E. Pinson, manager of the Pinson Electric Company of Preston, Idaho, whose sales room is shown here. Mr. Pinson has sold 150 washing machines in a town of 3,500, but he didn't do it only by store demonstrations such as you see in the picture. Read his own account of the methods that gave him success.

tion is the psychological effect which the weekly payment in smaller installments has upon the remainder of the sales force. Of course, the return from commissions which the salesman enjoys during a good period is much higher than any regular salary which the firm can pay, and if the counter salesman learned that the outdoor worker was receiving pay checks at the end of the month which were double his own he would become dissatisfied, in spite of the fact that his own income has the advantage of being regular, whereas the larger amount may dwindle greatly or cease entirely during a slack period. By paying outdoor salesmen weekly there is never any such large amount involved, and as it is obvious that one week's returns may be lower than the preceding, it is not reckoned up to sound as large as the occasional lump sums for special monthly records would appear. In all respects, therefore, the method has proved satisfactory and is recommended in the handling of a large number of outside solicitors.

A Plate, a Ball and a Rubber Tube Made This "Mystery Window"

A "mystery window" made up simply of a plate, a ball and a piece of rubber tubing has attracted many passers-by to a recent window display of the Vacuum Cleaner Specialty Company, Thirty-fourth Street, New York City. In the center-front of the window was a flat silver plate, resting on two small blocks of wood. An ordinary baseball was rolling constantly around the outer edge of the plate, while a sign immediately behind asked, "What Makes the Ball Go Round?" There was no apparent explanation of the phenomenon, although interested watchers evolved many curious ones, such as, "Oh, gee, I bet there are magnets under the plate attracting the ball from one side to another." A thick tubing, however, apparently thrown carelessly into the window about a foot from the plate, carried the explanation. This tubing was connected to a motor at the back of the window which blew air into it. The air, coming out of the tubing, struck the ball with just enough force to send it on another circuit around the plate, repeating this process as the ball came back to the same point.

More "Don'ts" for the Dealer That Have Stood the Test of Time

Don't discontinue the use of display shelves in your store. Most manufacturers pack their various wiring supplies in attractive cartons which, if properly arranged, make a good appearance. It is also a convenient means of serving the customer, rather than having to go to the cellar or back room for material.

Don't open the store at 8 o'clock one morning and at 9 o'clock the next; have definite hours for opening and closing. It is desirable to mention the hours of business in your newspaper advertisements.

Don't display a number of different articles in your windows at one time. For example, one week dress the window entirely with lamps, the next with flashlights, and so on—a frequent change of display and a well-dressed window attract customers to your store.

FRAME GOOD ADVERTISING POSTERS

Don't hang promiscuous advertising posters on the walls; those that are worth keeping can be inexpensively framed and will add to, rather than detract from, the appearance of your store.

Don't attempt to do a merchandising business without a competent salesman or saleswoman behind the counter at all times, ready for prompt service to customers. Less efficient

sales service is rendered by the salesman who is kept busy doing repair work or other odd jobs.

Don't permit smoking in the store; many women object to it, and any detail for their comfort, no matter how small, that will please the female shopper, who is usually the purchasing agent for the family, is good policy.

Finally—observe the manner in which successful merchants in other lines conduct their business and profit thereby. Be a persistent advertiser; join the business men's club, and, most important of all, the local electrical association.

To Push Radiant Heaters

Instead of displaying radiant electric heaters in their show windows, either with the current turned on or with a colored bulb substituted for the heating coil, McCarthy Brothers & Ford of Buffalo, N. Y., are bringing home to passers-by the advantage of the heaters in a much more effective way. When a recent cold wave hit Buffalo a heater with the "juice" turned on was mounted on a stand outside the door of the shop so that the people passing were able to stop and take the chill out of their fingers. Underneath the heater was this legend: "Feels good, doesn't it? It will feel better still in your bathroom, sitting room or office. Leave your order for one today."

If Tombstones Were Truthful—



If tombstones were only truthful, what tales they could tell! Well, here is a graveyard, at last, where consoling platitudes found no place—where, instead, there were epitaphs such as these: "Mother—lost her life carrying water from a spring 100 ft. from home;" "Hepzibah—broke her back bending over an ironing board;" "Sacred to the memory of Jane—she scrubbed herself into eternity." The cemetery, however, as it happened, was only a miniature cemetery, an exhibit at the Montana State fair by the State Agricultural College of Montana. It brought home forcibly to hundreds of visitors the need for home conveniences, for lack of which many a farm woman has gone to her grave before her time.



Hints for the Contractor



Equipping a Room to Demonstrate Better Industrial Lighting

Description and discussion alone cannot convey a full understanding and appreciation of the new standards in industrial illumination. Its attributes and potentialities must be made known through demonstration. Good lighting must be seen, felt and experienced; it should be contrasted directly with conditions of the kind that still prevail generally.

With such assistance, one soon comes to understand the elements of proper factory illumination and realizes the enormous opportunity he has to serve industry while at the same time multiplying several times the revenue from this load. By this means, also, the associated electrical interests of a given community can acquire the common understanding of the subject necessary to undertake a program through which the consumer will be ade-

quately served with equipments of the proper kind properly installed, and thus remove the limitations on the amount of light which the factory can profitably employ. And, finally, a demonstration forms, by all odds, the most effective lighting sales method. It offers the opportunity of arousing the interest and of educating not only officials of individual plants but also entire engineering, trade and business organizations.

The demonstration presented at the Pasadena N. E. L. A. Convention was based upon one developed during the past year in Cleveland to present the new standards in industrial lighting, how they have come about and what they mean to industry, before a large group of people. It was desired to show that with popular instruments of meas-

urement in use factory lighting has become a definite, quantitative art; that the requirements can be analyzed readily and met easily with modern standardized equipments; that there are actually vast apparent differences between the old methods and the new standards. The demonstration appeared to be effective and requests for its repetition came from many sources. It was made under conditions representative of those to be found in many other locations and is described here to furnish such suggestions as it may for installations in other cities.

THE DEMONSTRATION ROOM

The installation was made in a section of a building erected for garage purposes, but used temporarily as a factory cafeteria. The room is 50 ft. wide with open steel trusses, has a total ceiling height of 17 ft. and a clear height under the trusses of 14 ft. These trusses divide the room into 16-ft. bays. Three of the bays were curtained off with gray canvas for this demonstration, thus forming a room substantially 50 ft. square. The walls and ceiling were of medium color.

GENERAL LIGHTING SYSTEM

The several lighting systems provided are indicated in the sketch of the room.

System O—Original installation, consisting of three bowl-frosted lamps in shallow-dome reflectors at the centers of the bays. Space formerly used principally for car storage by day. The three overhead units were supplemented with a number of drop lamps both large and small, with and without reflectors, to simulate more nearly conditions as found in a large percentage of factory interiors at present.

System A—Sixteen 100-watt clear lamps with deep-bowl reflectors, the latter attached to cords so that they could be pulled up above the lamps or lowered over them. Spacing of units, 13 ft.; mounting height above floor, 10½ ft. Illumination on tables,* bare lamps 2.9 foot-candles; with reflectors, 4.1 foot-candles (range 3 to 6).

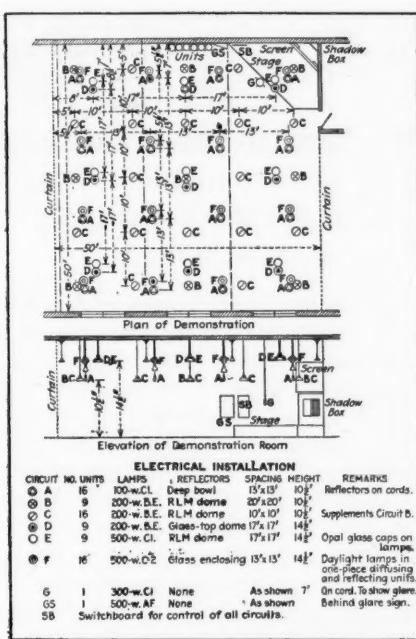
System B—Nine 200-watt bowl-enamelled lamps in RLM standard dome reflectors. Spacing, 20 ft.; height, 10½ ft. Illumination, 5.5 foot-candles (range 1.9 to 11).

System C—Sixteen 200-watt bowl-enamelled lamps in RLM standard dome reflectors. Added to System B, the



A room about 50 ft. square with a 15 ft. or somewhat higher ceiling is of ideal size for an industrial lighting demonstration. If the room has the general appearance of a factory interior, and tables or benches can be provided at which the audience can be seated, its use is rendered most effective. The high ceiling is valuable in showing the important relation between mounting height and spacing distance. A satisfactory demonstration may, however, be made in a room which is somewhat smaller; it is desirable that the width be at least 30 ft. and the length preferably greater, so that three rows of units may be installed. It is not possible in a room so small that only a few units can be installed to represent the lighting effects which would actually result in typical manufacturing interiors.

*The values are those for a new installation. In designing an installation for service an allowance must be made for depreciation.



Plan and arrangement of the lighting demonstration room at Nela Park, Cleveland

total System BC (25 200-watt lamps) resulted in a spacing of 10 ft.; height, 10½ ft. Illumination, 15 foot-candles (range 14 to 16).

System D—Nine 200-watt bowl-enameded lamps in dome reflectors with glass tops. Spacing, 17 ft.; height, 14½ ft. Illumination, 4.9 foot-candles (range 4 to 6). Opaque cones covering the glass tops, but attached to cords so that they may be raised above the units or dropped over the glass tops, should be provided.

System E—Nine 500-watt bowl-enameded lamps in RLM standard dome reflectors. Spacing, 17 ft., mounting height, 14½ ft. Illumination, 14 foot-candles.

System F—Sixteen 500-watt Mazda C-2 (Daylight) lamps in 20-in., one-piece diffusing and reflecting glass-enclosing units. Spacing, 13 ft.; mounting height, 14½ ft. Illumination, 11.5 foot-candles.

PLATFORM APPARATUS

A small platform was erected at one end of the room and the control of all lighting units brought to a switchboard at this point. A rheostat in the main circuit permitted reduction of the voltage of the various systems to at least 15 volts below normal.

At the back of the platform was a large box lined with black velvet and open at the front, in which were three vertical wooden bars of different cross sections and lighting circuits providing illumination from any or all directions.

A screen for the projection of lantern slides was placed above this box.

In the roof truss, above and to the front of the stage, was mounted a 250-watt floodlight with its beam directed to the stage. A rheostat

was placed in series with this lamp so that the intensity of illumination on the stage could be varied at will.

A large card in the form of a Snellen chart, so modified as to reduce the gradation in size between rows of letters, was available for mounting on an easel. In addition there was provided a device for exposing a desired letter or group of letters for a short period.

At one side of the stage was a row of lamps with clear bulbs, diffusing bulbs, diffusing globes, etc., for use in analyzing glare. Below these was placed a chart with lettering of various sizes and a translucent center spot, behind which was placed a 300-watt lamp connected with a rheostat.

Large charts showing plan views of the room with the different systems of lighting and indicating the position of the various tables used were available in discussing the results obtained. A blackboard completed the platform equipment.

On the tables at which the audience sat were placed foot-candle meters for measuring the illumination, bright tinned pans and lids for observing reflected images of light sources and castings to indicate the shadow conditions. The demonstrations were given to show:

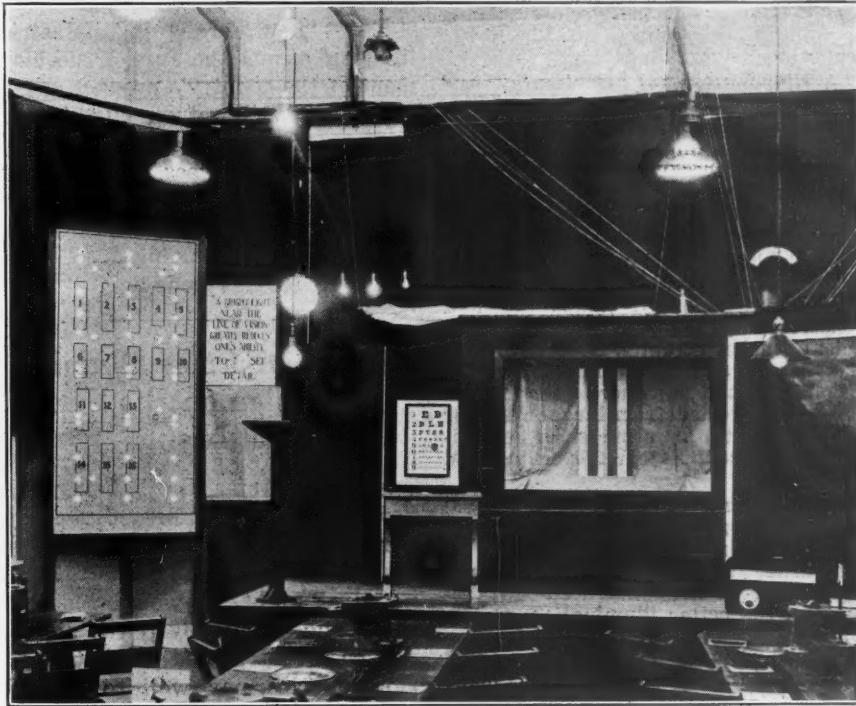
1. Visual Acuity—The modified Snellen chart was illuminated first to an intensity of the order of 1½ to 2 foot-candles and then to 12 to 15 foot-candles. Under the latter illumination an additional line or two could be read from any point in the room.

2. Time Element in Vision—The apparatus for exposing letters for short intervals was so adjusted that under an intensity of 1½ to 2 foot-candles the letter could not be identified from most parts of the room, whereas when exposed for the same interval under an illumination of 12 to 15 foot-candles it was easily read.

It was shown by these two demonstrations that under adequate lighting one sees more and sees it more quickly, and is therefore able to proceed with his work more accurately, and also more quickly, or with less fatigue.

3. Direction of Light—The three wooden bars in the shadow box were first illuminated from four sides; their appearance was substantially identical. With light largely directed from one side, however, they stood out distinctly as of round, triangular and square cross section. Thus was shown the importance of differences in brightness; that is, light and shade, in revealing the form of objects.

4. Glare—With increasing voltage on the lamp behind the glare chart the smaller letters near the bright spot became obliterated, evidencing the truth of the statement carried on the chart, "A bright light near the line of vision greatly reduces one's ability to see detail." As the brightness was further



Many central stations have rooms which could readily be adapted to this purpose, and at the same time continue to serve for uses of a character with which demonstrations will not seriously interfere. Such rooms may be in use as meter-testing laboratories, garages, reserve power plants, etc. In some cities the associated electrical interests may find it desirable to utilize a vacant store room, factory loft, or the like. The Commonwealth Edison Company of Chicago has recently fitted up an effective installation in a part of the main floor of the general office building. Machine tools, at which work is regularly carried on, benches, racks, etc., make the conditions typical of the shop and the demonstration most convincing. The location has the advantage of accessibility.

increased the chart could be viewed only with discomfort. Thus the effects of glare, both in interfering with vision and in causing discomfort, were emphasized. The row of units above the chart was used to show the effects of brightness and total quantity of light in causing glare. The effect of the position of the light source with respect to the eye was indicated by raising and lowering a bare lamp above the platform.

Glare from unshaded light sources was illustrated by the bare lamps of Systems O and A, contrasted with the results when the reflectors were lowered over the lamps.

Reflected glare from bright surfaces was apparent in the tinned pans. The value of the bowl-enameled lamp and the enclosed diffusing unit in minimizing the effects of such images of the units was clearly demonstrated.

The effect of contrast between the lighting units and the background was studied by comparing the results under Systems A or BC with those of Systems D and F, which transmit light for the illumination of the ceiling.

5. Increasing Illumination with Reflectors—The illumination was read on the foot-candle meters placed at each of the tables, under System A before and after lowering the reflectors over the lamps. With the reflectors, greatly increased foot-candle values were noted.

6. Uniformity of Illumination—Non-uniformity resulting from too wide spacing of units for a given mounting height was indicated by System B, where the illumination directly under the units was found to be six times that midway between the lamps.

Substantially uniform illumination was obtained by the same number of units mounted higher in System D, whereas the combination of Systems B and C gave a sufficiently close spacing to obtain uniformity at the lower mounting height.

7. Illumination of Horizontal and Vertical Surfaces—Comparison of System A with Systems BC and F showed the relatively higher illumination of vertical surfaces with dome reflectors or the glass-enclosing units, as compared with the deep-bowl reflectors.

8. Shadows—The value of soft, luminous shadows was illustrated by comparing the sharp, deep shadows produced with the clear lamps in small reflectors, System A, or by an insufficient number of units, System C, with the improved results under Systems BC, D, E, and F, where most of the light is redirected from larger reflector surfaces, with, in some cases, a considerable amount from the ceiling and walls.

9. Appearance of Room—The general impression produced by different types of lighting installations was noted in comparing the dark ceilings and walls characteristic with the deep-bowl reflectors, the better illumination of side walls with dome reflectors, the improved illumination of ceilings as well as walls with the glass top dome reflectors, and the attractive appearance of ceilings, walls and the units themselves when the glass-enclosing units were employed in System F.

10. Color of Light—The daylight lamps used in System F showed the better color discrimination and identification of objects with the whiter light.

Also, by removing the shutters from the windows, the mixing of this light with daylight was shown to remove the annoyance sometimes experienced when mixing more yellow light with white light.

11. Effect of Voltage—By means of the rheostat in the main circuit, the voltage of the lamps was reduced by varying amounts to indicate the effect on light output. By means of the foot-candle meters the great decreases in illumination with voltage below normal were read directly.

12. "Too Much Light"—The popular fallacy of "too much light" was shown to result from the use of improper units which cause excessive glare. All the lighting systems were turned on simultaneously, giving an intensity of about 50 foot-candles, revealing all details of objects perfectly with entire comfort to the audience. This intensity was compared with the much higher intensities which prevail near windows and out of doors under good daylight conditions.

Lantern slides were used in emphasizing the importance of adequate maintenance for lighting systems, as well as in the discussion of other points. The many elaborations and additional demonstrations which can be made with such an installation will immediately suggest themselves.

The Lighting Sales Bureau, N. E. L. A., will be glad to co-operate with any central station in working out the arrangement of lighting systems and apparatus necessary for a satisfactory demonstration under any specific local conditions.

The "new era" in industrial lighting means the further development of the country's productive efficiency. It will return hundreds of millions of dollars to manufacturers and their employees, while quadrupling the central station factory lighting revenue. A demonstration furnishes convincing proof of these facts. Seeing is believing.

Have the Farmer Illuminate That Sign on His Barn at Night

Many a farmer who is being paid now by advertisers for a sign on his barn or fence could earn twice as much by having the sign illuminated at night. It would cost him little, and, especially if the sign is near a well-traveled road, the advertiser will pay well to have it lighted during the dark hours, when it will attract the attention of every passing auto. It is such suggestions as this that win the good will of the farmer and more business for the contractor. Show him that

not only will his power plant pay for itself but it will actually earn money for him!

Be Sure of Your Business Proposition When You Approach Your Banker

"Don't go to your banker and ask for a loan unless you can show him that you want the money for an absolutely legitimate business proposition," says Carl Newton of Dallas, Tex., proprietor of the Fox Company, owner of the world's largest mail-order business of developing films, in *Business* for June.

"You can't afford to take a single chance on tackling the banker with a doubtful scheme, because if he turns you down once it may grow to be a habit with him.

"When you are building up a line of credit make it a practice to carry your deposits to the bank yourself; let the banker see you every day. You may not be very ornamental, but every-day contact sort of makes you one of the family, and people will always do more for home folks than outsiders.

DON'T RENEW YOUR NOTE FOR TOO SHORT A TIME

"If you ever have to renew a note, don't make the mistake of asking to renew it for too short a time. Don't trust that you are going to have extra good business and renew it for thirty days when you already have one note falling due next month. Renewing for too short a time has got good men into hot water."

Newton was asked if that was all he had to say on banking.

"There might be something more," he replied, "but it sounds almost too much like preaching."

"LIVE RIGHT AND TEND TO BUSINESS"

He was assured that nothing would be considered preaching when backed up by a record of acquiring in ten years the neat total of two big retail stores, a wholesale house, a four-story developing plant and 250 employees.

"Well, if you insist, it's just this," he said. "The young man who wants to have credit at his bank has got to live a good, clean, decent life. Bankers know that a man who lives that way is a safe gamble. Live right and tend to business. That's about all there is to it, I guess."



The Appliance Saleswoman



Electrical Appliances in Women's Restrooms

A saleswoman employed by the central station company of a large Middle West city recently began a systematic plan of selling electrical appliances for use in the combination restrooms and lavatories in office buildings. The saleswoman uses this method:

She first ascertains from the matron, maid, nurse or "welfare worker" in charge of the restroom how many electrical appliances are already in use. She goes then to the agent or owner of the building, or to a superintendent in the case of a restroom maintained by a single business concern, and submits her ideas and prices on desirable equipment. If the owners decline to buy any or all of the appliances she suggests, the saleswoman asks permission to put one or more of the small electrical luxuries she has suggested into the women's restroom for a month's free trial, also to post a notice in the restroom stating that the devices are temporarily furnished for trial, giving the prices and the small individual contribution from each girl (based, of course, on the number of girls using the restroom) required to purchase each appliance.

AN ELECTRIC HEATING PAD FOR EVERY WOMAN'S RESTROOM

Electric heating pads have proved by far the best restroom sellers. It is really inexcusable for any woman's restroom to be without at least one. Curling irons come next. Unexpectedly, the saleswoman has made a considerable number of sales in this way of toasters, percolators and grills. Groups of girls buy them for co-operative luncheon and for hot drinks and snacks at odd hours during the business day. She also has found it surprisingly easy to make sales of vibrators, which the business women usually buy on the co-operative basis. A month's trial is far more than enough to demonstrate to women brain workers the efficacy of the electric vibrator in soothing tired and aching nerves.

An "Idea Exchange" for the Women Who Sell Electrical Labor-Saving Appliances for the Home

To digress somewhat: The value of the electric vibrator as a means of quick relief from headache, brain fag, eye strain and every other kind of nerve strain has never received sufficient advertising in this country, where the advertising of scores of dangerous medicinal headache "cures" goes on directly causing deaths from time to time, and incidentally making fortunes for the advertisers. A far larger number of women can be reached by the headache appeal than by the home-beautifying appeal, and in advertising to home women the argument should never be omitted that the electric vibrator is a home comfort

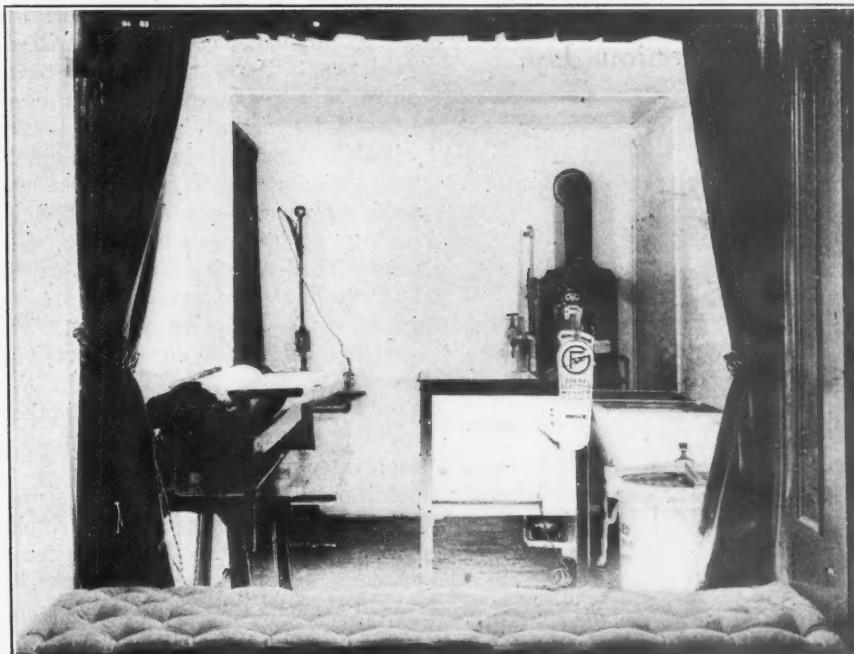
and luxury for all the members of the family, all who have pains and aches, lazy hair follicles, poor circulation, fagged muscles and nerves—the men members of the family as well as the women.

The saleswoman finds private concerns particularly open at this time to her electrical comforts suggestions for their women employees. The electric appliance is a splendid little good-will creator and assistant in the welfare work now carried on by so many large concerns.

As a direct result of the restroom sales many sales have been made of electrical appliances for home use by the business women and their relatives and friends; the largest number being made at Christmas time.

The success of the office building experiment has prompted the sales-

California Dealer Opens "Free Municipal Laundry" in His Electric Shop



"Familiarity breeds approval, not contempt, of electrical labor-saving devices," is evidently the creed of an Oakland, Cal., dealer whose latest stunt is to establish a "municipal laundry"—absolutely free—right in his store, where all Oakland may come and wash, if it so pleases. W. T. Smith, manager of the Domestic Electric Appliance Company, who conceived the project, is basing his appeal to Oakland housewives on the shortage of domestic help and the high cost of laundering. He has fitted up a commodious room in the rear of the company's display room with electric washing machines, drying machines, mangles and irons of various sizes. In addition to the equipment, electricity, gas, hot water and soap are supplied. Everything is absolutely free, and housewives who bring their laundry on their regular washdays incur no obligation whatever. Mr. Smith believes that the educational work alone will pay for the project in the end.

woman to make a profitable canvass of all the restrooms and lavatories in the hotels, restaurants, shops and other public places in her city.

The use of electrical appliances in restrooms, of course, sells off-peak current for a central station company, summer and winter.

And it would be difficult to devise a more perfect advertisement of appliances and electric service in general than the electrical appliance in a women's restroom.

Tell the Man That!

"I don't bore my women customers with details of the mechanical perfection of my washing machine," says a saleswoman who has been doing suburban house to house work for an electric washer. "I tell the men that. They are naturally more interested in mechanics than women are and understand what I am talking about when I say belt drive, worm drive, gears and motor. A woman just wants to know if it will do the work and a demonstration will show her that. But I have known men to discuss the mechanical features of different types with as much interest as if they were speaking of the latest automobile models."

"Why Not Make Tea on the Headlight Heater?" Asks the Ingenious Jap



Americans like to think they are more inventive than most others, and perhaps they are—but when it comes to ingenuity, particularly in the application of electrical appliances to new uses, we must occasionally take our hats off to our neighbors across the Pacific. Here is a suggestion for the Japanese housewife—to make tea on her electrical "headlight" radiator. It was part of an advertisement in *Ohm*, a Japanese electrical journal, published in Tokyo.

Electric Curler Puts Crimps in Blouses

Blouses with crimped ruffles are attractive when new, but, unless one has a crimper at home, it is difficult to make them look fresh again after being laundered. One way to get around this, points out the Washington *Times*, is to use the electric curling iron, which will do the job as neatly, if not as rapidly, as a crimper. Here's another selling point for your electric hair curler!

Make the Woman Whose House Is Unwired Your Future Customer!

"Don't laugh at the woman whose house is unwired—she is your future customer," says Miss Helen Deane, head saleswoman of the Philadelphia Electric Company.

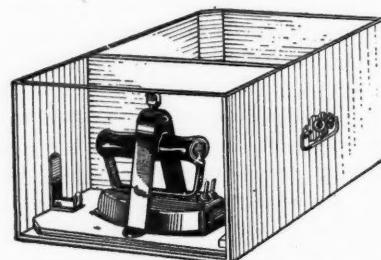
"I have seen even the best saleswomen turn a cold shoulder to a customer whose house, as they learn from some casual remark, is not even wired. A little broader vision would not only make that woman's home a wired home, but would make her a future and grateful customer. Sometimes it is just out of ignorance that a woman whose home is unwired will come in and inquire for an electric iron. Or sometimes some one will see the lamps in the store and enter to inquire for a gas lamp. In either case, when I learn that her home is unwired I usually take advantage of the opportunity to show her the washing machine and other labor-saving appliances which she may have with electricity. In other words, I try to have her leave the store inspired with a desire for electrical conveniences. If I do my part well there's soon another house in the hands of the electricians and another regular customer for our appliance department."

Miss Deane believes that the secret of success in selling electrical appliances is to learn the individual needs of each customer and suggest the way to meet them. Recently, she was called over to help out two Italians who had difficulty in explaining their wants. She finally made out that they wanted to take to Italy a small vacuum cleaner for use in a fourteen-room house. "Too small," she pronounced, and after much gesticulating and verbal fireworks she induced them to order a \$59 size.

Two months later the men returned with an order for sixty of those cleaners, which they were going to sell in Italy!

Here's a Trunk That Makes Special Provision for the Electric Iron!

When the trunk is opened at the end of the trip and the clothes taken out, ready to be hung away, and one finds one's silks and ruffles loath to respond to any ministrations—then, if one has been wise in foresight, goes forth the call to action to the electric iron. The convenience and quick service of this little electrical servant have made it almost a necessity to every traveler. So much so,



The electric iron is held securely in place in this compartment in one of the drawers of the Hartmann wardrobe trunk.

in fact, that one trunk maker, the Hartmann Trunk Company of Racine, Wis., has made special provision for packing an electric iron in its wardrobe trunks.

The compartment for the iron in this trunk is in one of the drawers and contains a flat support on which the iron rests, fastened securely.

Summer vacationists purchasing electric irons for the trip will appreciate the suggestion that at least one trunk maker has made provision for their needs in this respect!

Away with Brooms and Brushes

You who've borne the tribulation and
the dusty inundation
Of the spring house-cleaning days of
long ago
Know that now that dread inundation
has been doomed to dissipation,
We have trapped the oft elusive
"Witch of Woe."
So away with brooms and brushes and
away with mops and slushes,
And away with beating carpets,
pulling tacks;
Just a vacuum installation plus electric
generation
Chases dirt from all the corners,
nooks and cracks!
—HALE MCBRIDE in *Edison Monthly*.



The Jobber's Salesman

*Ideas Other Men Have Used
to Help Them Sell Goods,
and to Build Better Dealer-
Customers*

Do You Take an Inventory of Yourself as a Salesman?

BY GUY CLIFFORD

Take an inventory of yourself! Study the impression you make on your customer!

Bear in mind that a man is often taken for the value he represents; it is none the less true in business. If you do not put much esteem in yourself the world, certainly, will not. It is the man who stands for something, determined to win, understands his trade, that the world is seeking. It will be a hard matter to hold your customer, impress him favorably with your goods, if you are not dressed in keeping with your occupation. You are not expected to wear broadcloth, but to dress in a neat, clean, gentlemanly manner. Not flashy patterns, but a modest, up-to-date style. A salesman is quickly

sized up by his appearance. If you are a student of humanity you have, no doubt, noticed the result.

Understand your line so well, it will be useless for one to argue with you. But, remember every time you chat with any one, if careful, you will learn something of value. Strive to be broad and liberal minded as possible. Be a thinker. Allow every man his own opinion. Read everything that holds a possible thought for advancement. New ideas will be a vast help; don't let the fancy get away. Put them into practice; don't stop with reading. If you cannot carry facts in your mind jot them down in a book for future reference. Keep trying them, until you have worked out a system that is next to

perfection. Thoughts gained by good reading, with your experience, ought to do much toward advancement.

And never lose sight of doing your work a little better than any one else!

Successful Salesmen Study Customers' Fads

Every customer you meet has some fad, some hobby in which he or she will always be interested, if you have anything worth while to say along that line.

Why not have a little indexed pocket memorandum book in which you set down the names of all the customers with whom you are personally acquainted who have fads or special interests you have found out about?

You cannot hope to remember these things about everybody you know by name, but you can put that

Jobber's Salesmen Entertain Vancouver Electrical Association



At the banquet of the Vancouver Association of Electrical Contractors and Dealers, June 1, attended by nearly 400 electrical men of western Canada, the feature of the evening's entertainment was the minstrel show given by the Vancouver sales organization of the Northern Electric Company. The twelve minstrels appeared in blackface, sang songs and cracked electrical jokes to the delight of the audience. By numbers the minstrels are:

(1) R. T. McFarlane, salesman; (2) John McColl, salesman; (3) A. A. Tufford, power apparatus specialist; (4) H. W. Sellars, salesman; (5) George Brisca, salesman; (6) R. C. Coverly, salesman; (7) K. W. Hewitt, salesman; (8) H. Morris, salesman; (9) C. K. Dunbar, acting credit manager; (10) W. C. Mainwaring, district sales manager; (11) J. M. Meldram, salesman; (12) H. E. Richardson, salesman.

information where you can get it when you want it. And when you are calling on a customer there is a chance some time during the visit to refer privately to your little pocket encyclopædia of fads and hobbies. If you can't get at that information to use it sooner, you can at least make a passing reference to it.

CATER TO CUSTOMER'S HOBBIES

When you have knowledge of special interests of really important customers—go out of your way to cater to them. For the man or woman interested in amateur photography clip out the item or the picture you see in some paper and which you know would interest an amateur photographer. If dogs or cats are the special hobby, watch for items of interest that may appeal along that line, or note anything you see that is applicable.

For the man who collects anything, remember it when you see a unique article along the line of his collection and tell him about it and when and where you noticed it.

Seven Things a Salesman Should Do

1. Stop talking price. Service and quality are far more effective selling arguments.
2. Keep in mind the needs and desires of the customer and make all benefits derived from an order mutual.
3. Sell nothing that cannot be produced and delivered; make no promises that cannot be kept.
4. Be able to analyze, reason and decide customers' needs before trying to effect sales.

5. Have confidence in the house you represent and the service or goods it deals in, and have confidence in your prospect.

6. See that his line is such as to render service, sell at a profit and give satisfaction.

7. Know that an order, to be a real order, must be sold right, taken right, made right, delivered right, look right, and be right.—OLIVER L. WROUGHTON, in the *Typhothetae Bulletin*.

Novel Washer Demonstration Staged by Milwaukee Jobber for Benefit of Dealers

A unique demonstration of the simplicity of assembling an electric washer was given on May 27 at the Wisconsin Manufacturers' Show, Milwaukee, when two mechanics engaged in a speed contest in assembling the machine. It was a genuine assembling contest, inasmuch as the washers were assembled completely just as they were in the factory.

That is to say, it wasn't a case of merely putting the tub in place and attaching the wringer and the motor, but every part and every nut and bolt had to be put in place. An interested crowd watched the contest, as much impressed with the simplicity of the washer as with the skill of the mechanics. The winner's time was nineteen minutes and five seconds.

The contest was staged by the National Appliance Company of Milwaukee and represented one of the ways in which this jobbing house co-operates with its dealers. Complete demonstrations were

given at the show of the machine, which was a "Surf" electric washer, but all prospective customers were referred to their nearest dealers, and the full-page newspaper advertisements announcing the contest carried the names of dealers handling the washer.

How Manufacturers Can Help Jobbers' Salesmen Introduce Their Goods

BY M. A. OBERLANDER
Supply Sales Manager Western Electric Company, New York City

I would say that the first work on the part of the manufacturer should be that of making his own men thoroughly familiar with his line. In other words, his representative must first be thoroughly "sold" on his product and likewise should be enthusiastic on the line. He then will not experience any great difficulty in selling the line to the jobber's salesman.

The jobber's salesman should be furnished with the necessary samples as well as complete data to fully post him on the article or device. He should also be informed of the possibilities of the line, the gross profits and the manner in which the article is packed, and then advised to direct his efforts to the sale of standard package quantities.

The manufacturer's representative should accompany the jobber's salesman to several of his customers, until he feels confident that the jobber's salesman fully understands how to sell the line, also making him thoroughly familiar with any advertising campaigns being carried on by the manufacturer.

"Off the Jobbing Job for a Day!" Pettingell-Andrews Employees Hold Field Day at Boston Shore Resort



On June 12 the 300 employees of the Pettingell-Andrews Company, Boston, held a field day at Nantasket Beach, in Boston Harbor, attended by all hands—executives, salesmen, stockroom clerks and office force. The entire arrangements were in charge of the employees themselves. The ball game between the elec-

trical supply department and the automobile division was won by the Electricals, 8 to 2. A big dinner and dance wound up the entertainment. President Frank S. Price, Treasurer George Murphy and Sales Manager J. E. Livor appear prominently in the center of the seatees in the front row.



Sales Helps for the Dealer

Putting the Bank Robber Out of a Job

Such a feat as the recent broad-daylight robbery of a jewelry shop within sight of hundreds on Broadway may make a tale to thrill New York's newspaper readers, but hardly the owner of a bank or trust company. He, instead, is thinking of new methods of protecting his own bank.

Of special interest to the bank owner, then, will be the booklet just prepared by Stanley & Patterson, New York City, on their new electrically supervised bank protection system. After reading about the reception provided the hold-up man, one wonders if the day of the bank robber isn't soon over! What mere burglar has half a chance against a system that not only sounds the

Show Window, Counter, Mail Advertising and Specialty Aids which Manufacturers Offer to Help You Get More Trade

alarm in five or six different ways but also automatically locks every door in the building to prevent his escape? Under the teller's desk is a foot-rail which needs but a tap of the foot to give the alarm, unknown to the burglar, while the teller is apparently helpless with arms outstretched. Instant ringing of gongs within or outside the building may sound the alarm, which cannot be stopped except by the master switch within the central control cabinet. Alarm lamps will give the signal at the telephone operator's desk, watchman's quarters, cashier's office, etc. Code signals will automatically transmit the message to

police headquarters. And finally, with the locking of the doors, a red sign will be instantly flashed at the main entrance reading "Bank Robbery" or any desired message.

These are only a few of the things in the booklet which would appeal to bankers and jewelers, but it's a question whether it would not help to make the device effective if the contractor-dealer distributes the booklets to any burglars he happens to know!

What to Do When a Cleaner Will Not Work Properly

Frequently, when a customer complains that her cleaner is not working, the dealer finds merely that the bag is too full of dirt or that some trifling obstruction in the nozzle is preventing the inrush of air. To prevent dissatisfaction of this kind the Eureka Vacuum Cleaner Company, Detroit, Mich., is issuing a list of "things to do when your cleaner will not work properly." The suggestions are incorporated in a leaflet giving the repair parts price list of the company and are as follows:

See if the current is turned on at the lighting fixture and make sure that the plug is screwed tightly into the electric light socket.

Make sure that your lighting fixture is in good working order by testing it with an electric light bulb.

Be sure that the button switch on the handle has been pressed forward.

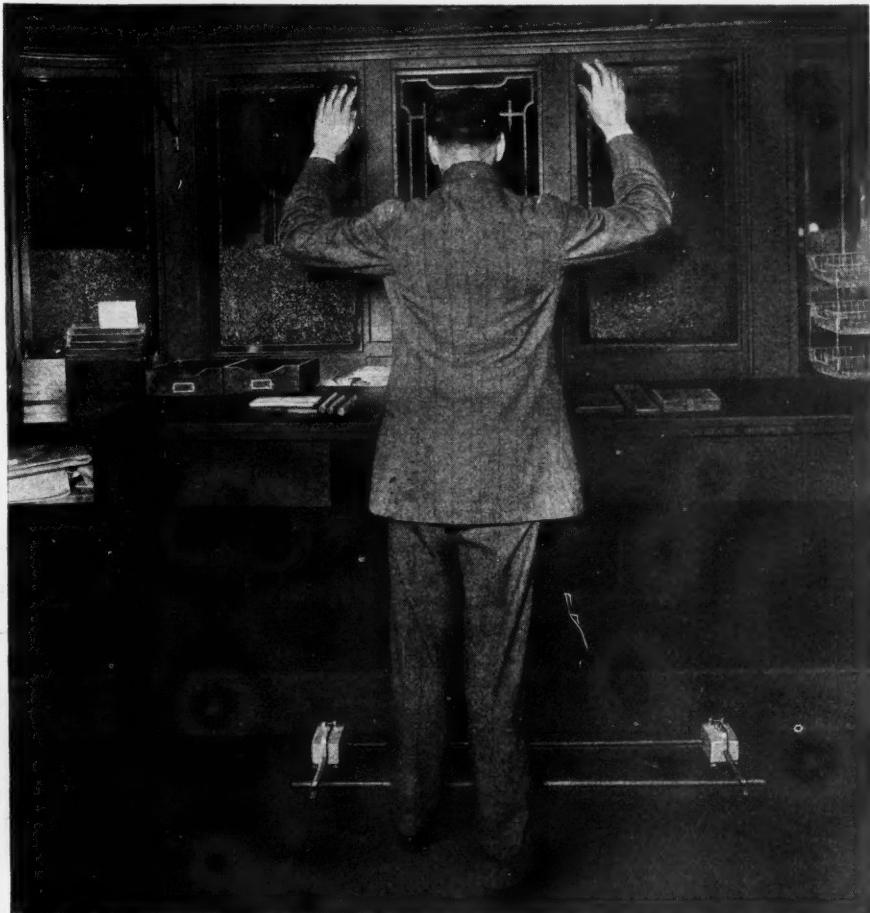
Be sure that the bag is not too full of dirt and that the discharge vent is not by any manner stopped up.

Make sure that there is nothing in the nozzle of the machine obstructing the inrush of air.

If by any means you do not discover where the difficulty lies, communicate with the dealer from whom you bought your cleaner or write direct to this company.

"Hot Water Without Heat in Summer"

"Few families, either in the city flat or summer cottage, enjoy the luxury of hot water in summer, because they cannot endure the heat of a continual fire in the coal stove or gas range. It is much cooler on a hot July night without the fierce range fire, but put it out and you are left without hot water for household needs." These are the families, then,

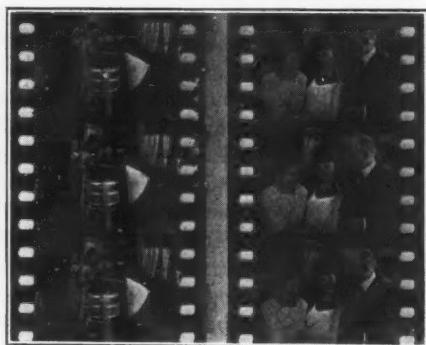


"Hands up!" will have to give place to "Feet up!" if the future bank robber wants to be assured of the helplessness of his victim. With this new bank protection system, a foot rail under the teller's desk needs but a tap of the foot to give the alarm. Other protective features of the system are described in the Stanley & Patterson booklet now ready for distribution by contractor-dealers to bankers, jewelers, etc.

which will appreciate an electric water heater, points out the National Electric Water Heater Corporation, Times Building, New York City, in a new pamphlet which it has ready for distribution on its "Little Wonder" heater.

Another Movie Film to Help Banish "Blue Monday"

"Except and Including" is the title of a new motion picture film now at the disposal of dealers wanting to use this most powerful weapon for spreading the message of "no more blue Mondays." The first subtitle of the play reads: "Once upon a time there was a family named Williams who lived happily—*except Monday*."



Betty brings happiness, in the form of an electric washer, to the Williams family—scenes from "Except and Including," the new movie film now available for dealers.

After which it isn't hard to guess that the story centers around a housewife still handicapped by her adherence to the tub-and-washboard method of laundering. The play owes a large part of its appeal to its realistic portrayal of the everyday happenings and irritations in a home where "blue Monday" is forever associated with hasty breakfasts, even hastier tempers and general upset. And of course there is the pretty heroine, who finally sets things right for her aunt by having an electric washer installed, and enables the play to end with the caption, "And they lived happily ever afterward—including Monday."

The film was produced for the Meadows Manufacturing Company of Bloomington, Ill., by the Venard Photographic Company, Peoria, Ill.

The Wagner Electric Manufacturing Company, St. Louis, Mo., is distributing an attractive picture calendar for "Wagner" motors. The calendar is designed to show three months at a glance and runs to June, 1921.

When Even the Movies Talk in Electrical Terms

BY LIDDA KAY

When every housewife is on as familiar terms with volts and amperes as she is with her tape measure and measuring cup, one more obstacle to a real popularization of electrical labor savers will cease to exist. Every wide-awake dealer knows this and is constantly seizing every opportunity to disseminate in popular guise a knowledge of the more technical things about electricity.

The mediums of information are, briefly, the newspapers, magazines, schools, lectures, churches, and—what is universally acknowledged to be the most powerful medium of all—the movies.

That is why a recent and wholly unintentional contribution to the cause of popularizing electrical terms has been made in the Marshall Neilan production "Don't Ever Marry," sent out by the First National Exhibitors' Circuit, New York City. In the first place, the hero is "an electrician in love," and owner of a "well-paying electrical shop."

This, of course, gives opportunity for the laying of two or three scenes in an electric shop and for the spicing of the subtitles and the publicity matter of the play with snappy electrical terms. A brief synopsis of the play, for example, reads as follows:

"An electrician sparks his way into a secret marriage by short circuiting a non-conductor whose 'ohm' venture inspires her warning 'Don't Ever Marry.' Contact with an unsuspecting father-in-law brings batteries of mirth-quaking complications, while the girl pessimist turns the confidence into a weapon to compel the bridegroom to pose as her husband to lower the amperage of her own family's ambition for her. Trouble shooters have 6,000 ft. of real excitement untangling the predicament of a man whose first and only 'I do' gives him three wives."

This may be popularizing electrical terms with a vengeance, yes—but at any rate it is more understandable to the average woman than would be a drab lecture on the subject!

The Lighthouse as a Motif for a Lamp Display



Lamps, being static, are among the most difficult electrical devices to display effectively, and the best lamp windows consequently are those which tie the lamp up with something which suggests light to the casual passerby. This has been done in the "lighthouse" display now ready for distribution by the Westinghouse Lamp Company. On top of the great lighthouse which holds the center of the picture a lamp flashes every few seconds and at its base the ocean waves are beating against the rock ledge. The gray color of the tower and the green foam form an impressive contrast to the light flashing in the tower.



Gossip of the Trade

Pittsburgh Electrical Men Are Planning a Co-operative Campaign

Let California guard her laurels well. Pittsburgh is out to capture them. What? Pittsburgh, the home of soot and gloom, out to capture the "fruit" and "climate" of "sun-kissed" California? Well, hardly that—but for leadership in co-operation among all branches of the electrical industry Pittsburgh threatens to become a strong contender.

What for the present must go down in electrical history as the largest and one of the most significant meetings of the Goodwin movement was the "get-together" meeting of all the electrical interests of western Pennsylvania and the Pittsburgh district, held at the Fort Pitt Hotel June 23. At this meeting 733 electrical men sat down to dinner. In the main dining hall 524 guests were accommodated and to care for the overflow two other dining halls were necessary. Until this meeting the palm for the largest attendance at a Goodwin "get-together" meeting belonged to the electrical interests of Canada, which were represented in the dinner held in Toronto during the past winter.

Behind this remarkable Pittsburgh meeting lies the vision and initiative of the electrical jobbing interests of Pittsburgh. To this group belongs the credit for starting what may shortly develop into an electrical co-operative campaign, modeled along the lines of the now famous California

Glimpses of Electrical Men at Work, at Play, and in Convention—as Caught by Lens and Pencil

movement. Several of the electrical jobbers of Pittsburgh attended the recent meetings of the Electrical Supply Jobbers' Association and the National Electric Light Association held at Del Monte and Pasadena, Cal. At those Coast meetings the Pittsburgh jobbers caught a new vision of what co-operation really means and how it can be obtained. Fired with enthusiasm over the results which have been obtained by the co-operative effort in California, the Pittsburgh wholesalers returned home determined, if possible, to bring about a better day for the electrical interests in the Pittsburgh district.

As a result of this new purpose a representative "get-together" committee, not chosen from any one of the existing electrical organizations in Pittsburgh or Pennsylvania, was whipped into shape. The members of this committee were as follows:

Representing the manufacturers: W. P. Jend, M. C. Turpin and H. B. Kline of the Westinghouse Electric & Manufacturing Company and J. H. Van Aernam of the General Electric Company.

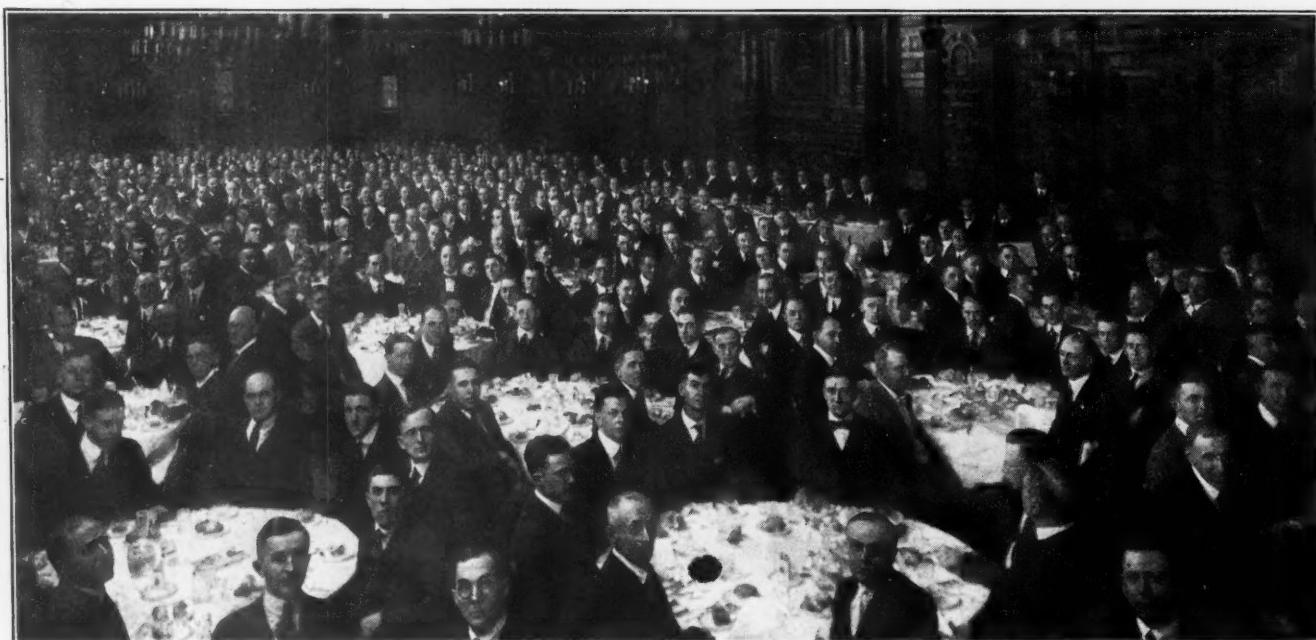
Central stations were represented by F. F. Kellogg of the Duquesne Light Company and L. C. Lamb of the West Penn Power Company.

Jobbers' representatives were W. D. Shaler of the Union Electric Company, C. P. Hill of the Doubleday-Hill Electric Company and C. R. Harrison of the Robbins Electric Company.

To represent the dealers were Henry Harris of the United Electric Stores, Fred

Reble of the Axthelm Electric Company and G. T. Barrow, Wilkinsburg, Pa. The Electric League's representative was O. J. Goettman.

Recognizing the opportunity afforded by the meeting of the Pennsylvania State Association of Electrical Contractors and Dealers, which had been set for June 23 and 24, the "get-together" committee obtained the interest and co-operation of the other electrical groups in the planning for the success of the electrical "get-together dinner" which was held the night of the twenty-third. Practically every electrical interest in the Pittsburgh district was represented. James McA. Duncan of the Westinghouse Electric & Manufacturing Company presided as toastmaster. M. C. Turpin of the Westinghouse Company presented an illustrated lecture on modern applications of electricity. H. B. Kirkland, affectionately known as "Harry," who is now a traveling partner of Mr. Goodwin and Mr. Chase, discussed a \$2,000,000,-000 electrical business for 1920. Samuel Adams Chase, beloved by everybody in Pittsburgh, and better known as "Sam," was unable to be present because of illness. Mr. Chase's long service in the electrical industry, especially his work in behalf of the Goodwin movement, was not forgotten, however, and every speaker paid tribute to Mr. Chase's ability and achievement. W. L. Goodwin closed the formal program with an address, which for force and careful analysis of the present day trend within the electrical industry and for practical helpfulness



Before another Goodwin "get-together" meeting is held in Pittsburgh somebody will have to find or build a larger banquet hall than the main one taken over by the Pittsburgh electrical family on June 23. In the English room of the Fort Pitt Hotel 524

guests sat down to dinner. Just 209 other guests filled two other dining halls. This dinner, with a total of 733 guests, is the largest Goodwin dinner since "Bill" left California to develop his plan on a national scale.

in obtaining full co-operation has seldom been excelled, even by Mr. Goodwin himself.

As a result of this meeting the temporary "get-together" committee is planning the creation of a permanent co-operative campaign committee, which shall include in its membership representatives from all of the electrical interests of the Pittsburgh district and which shall not be a committee of any one of the existing electrical organizations. When this permanent committee has been chosen, it will go ahead with the plans for a co-operative movement, similar to the one in California.

The meeting of the Pennsylvania State Association of Electrical Contractors and Dealers was perhaps the best state meeting ever held in Pennsylvania. One of the results of this meeting was the organization of the Pittsburgh District Association. G. T. Barrow, Wilkinsburgh, Pa., was chosen president of the new district association and C. R. Harrison of the Robbins Electric Company was chosen temporary secretary.

Cooperative Effort Reduces Canada's Tax on Electrical Goods

By GORDON C. KEITH

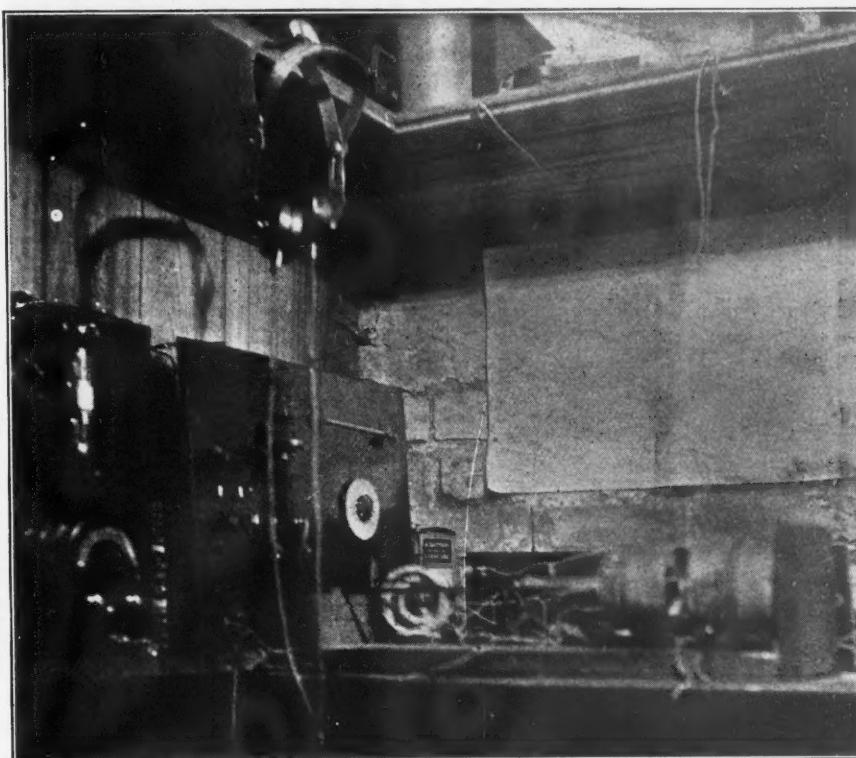
By the co-operative effort of the electrical industry of Canada the proposed "luxury" tax on electrical goods has been reduced and in some cases eliminated. By the budget brought down in the Dominion Parliament on May 18 electroliers, except for churches, were subject to a luxury tax of 20 per cent. Asked for an explanation of the word electrolier, the department defined it as a gas or electric fixture having more than one light.

Coming under the luxury tax of 10 per cent in the first draft of the budget were plated wares, which of course included all electrical household appliances such as irons, toasters, coffee percolators, samovars, etc. This meant a great curtailment of the electrical trade.

It was decided to act promptly in making representations to Ottawa. The electrical trade is fairly well organized and it was comparatively easy to bring the men together. In Toronto there is the Electrical Club, Jobbers' Association, manufacturers' section of the Toronto Board of Trade, with Harry Banfield at its head; the electrical contractors, with Kenneth McIntyre as president, while in Montreal there are similar associations. These acted promptly. The clubs throughout the country were communicated with and representatives journeyed to Ottawa. There was a big delegation from Ontario and Quebec provinces, while telegrams were sent in from the associations in the other provinces.

Suggestions made to Ottawa were

Making Dollars in the Basement



George A. Morton, son of W. H. Morton, general manager of the National Association of Electrical Contractors and Dealers, is making dollars in the basement of his home in East Orange, N. J., and they are not counterfeit dollars either. A few years ago George became interested in wireless telegraphy. With some inexpensive material, a few tools, and his hands he made a simple wireless set and installed it. It worked. He sold it and made a better installation. Then he sold that at a profit, and made a still better one. The illustration shows his latest installed equipment, which has a wide range. The "wireless room" in George's home is a corner of the basement. Under the shelf hangs a wireless map of the world. If George can do a wireless manufacturing business in the room next to his father's coal bin, is it not fair to believe that a dealer can make money on wireless apparatus sold in a modern electrical store?

that they were putting a tax on household necessities and that they were adding to the cost of house construction, which was inadvisable at the present time in view of the house shortage. In fact the Dominion Government has had to give assistance to the extent of \$25,000,000 to aid house construction in the Dominion.

All plated ware by the amendment to the budget is now exempt from the luxury tax except goods plated with gold or silver. This is a very important concession to both the electrical and hardware trades. In regard to the fixtures, electroliers for churches are exempt, as in the first draft. The amendment affecting the other lines is as follows: "It is proposed to abandon the present tax on chandeliers at 20 per cent and provide for a tax of 10 per cent, to be paid by the manufacturer, as in the case of articles falling under section 3 of the resolution, as follows:

"Chandeliers, except for churches, in excess of \$12 each; wall brackets in excess of \$3 each; gas and electric light fixtures in excess of \$3 each, not elsewhere provided."

In addition there is a sales tax of 1 per cent on the above. This is levied and collected on sales by manufacturers, wholesalers or on importations.

Profit-Sharing Plan Puts the Worker on Investor Basis

The White Lily Manufacturing Company of Davenport, Iowa, will share its profits with employees in proportion to the percentage of its net earnings to gross business, according to a plan announced by President Sam T. White.

For instance (the figures being only for purposes of explanation) if the company did \$1,000,000 worth of gross business in a year and the net profits were \$100,000, the net profits would be 10 per cent of the gross business. Each employee would receive as his share of the profits 10 per cent of his annual wages. Whatever is the percentage of the net profits to the gross business, that will be the percentage of his annual wages the employee will receive as his share of the profits.

If an employee is making \$1,500 a year his share of the profits for the year, supposing the gross business were \$1,000,000 and the net profits \$100,000, would be \$150.

Only employees who have been with the company a year or more will share fully. Those who have been with the company from 6 months to a year will receive half of the amount.

NEW MERCHANDISE TO SELL AND WHERE TO BUY IT

Appliances, Socket Devices and Wiring Supplies Which Manufacturers and Jobbers Are Putting on the Market

Including Many New Appliances to LIGHTEN THE LABOR OF THE HOME



Electric Alarm Clock

From *Electrical Merchandising*, July, 1920

An electric alarm clock which may also be used as a call bell and a safety bank is a product of the Darche Manufacturing Company, 643 West Washington Boulevard, Chicago. It is operated by a dry battery and is set by placing the indicator on the dial at the desired time and placing the switch underneath the bell on the contact point. At the time indicated the bell will ring until the switch is thrown off.

A cord and push button attachment is designed to light up the dial and room at night. By reversing the tip at the end of the lamp cord, on back of the clock, the lamp or bell may be used as desired. It is said to be particularly useful as a call bell in a sick room, office, shop or home. Another part of the metal frame of the clock may be used as a savings bank and safety depository. The bank is for coins and paper money and is above and separate from the jewel deposit safe. The safe can be opened only by knowing the combination lock.

Stage Lighting Units

From *Electrical Merchandising*, July, 1920

Two new lighting units for producing lighting effects on the stage have been developed by the Brenkert Light Projection Company, Detroit, Mich.

The spot-light unit consists of a 40-amp. hand-fed arc lamp, using $\frac{1}{2}$ in. carbons, and enclosed in a sheet-metal housing. The front end of this housing is fitted with a pair of condensing lenses. Two sizes of condensers may be obtained, for producing spot-lights.

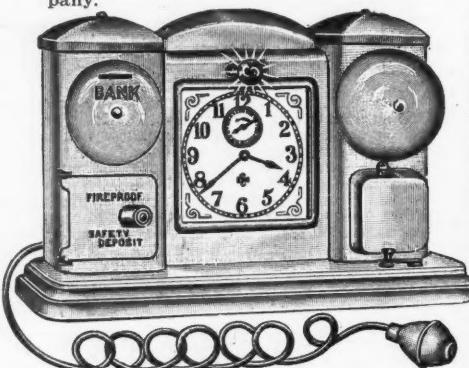
The other lamp, used for flood illumination of the stage from the balcony, has a 100-watt tungsten gas-filled lamp as a source of light. Devices for producing lighting effects may be attached.

Variable Condenser

From *Electrical Merchandising*, July, 1920

A variable condenser for wireless work the features of which are said to be its compactness, stability and simplicity of design, is a recent product of the Connecticut Telephone & Electric Company, Meriden, Conn. Two metal plates of 1.17 sq. cm. area, one of which is movable to and from the other without rotation, are separated by a mica sheet, so that a capacity of 700 micro-microfarads is obtained. The instrument measures $2\frac{1}{2}$ in. in diameter and is $1\frac{1}{2}$ in. in height to the dial plate. Effective resistance is given as a few tenths of an ohm. The capacity is distributed over a scale length of 360 degrees, and the manufacturer says that smooth variation may be had to the extreme end of the scale.

An electric "Reminder" clock, supplied in desk form with buzzer or small bell or blackboard and 6-in. gong or small bell, is another product of the same company.



Extension Light

From *Electrical Merchandising*, July, 1920

For use where a portable electric light is necessary—in garages, factories, machine shops, mines, store rooms, etc.—the Wood-Craft Company, St. Paul, Minn., is marketing an extension light with 25 ft. of 16-gage reinforced waterproof cord on a reel.

The light takes any standard size electric light bulb and attaches to conduit outlet boxes like any other lighting fixture. Each light is equipped with socket, switch, etc.

Motor-Driven Dishwasher with Rinse Tank

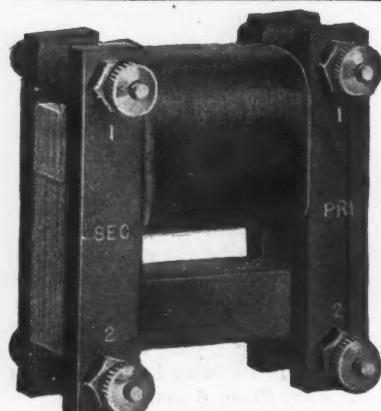
From *Electrical Merchandising*, July, 1920

A motor-driven dishwasher with a capacity of 6,000 dishes an hour has been developed by the Tupper Manufacturing Company, 1122 West Forty-seventh Street, Seattle, Wash. The washer consists of two tanks, supported side by side in a framework and connected by an overhead trolley and chain block. In one tank the washing is done, after which the basket holding the dishes is raised, allowed to drain for a few seconds and then carried over by the block and trolley and lowered into the rinse tank. It is lowered and raised several times in the rinse tank to remove the soapy wash water. The washer is driven by a $\frac{1}{2}$ -hp. motor.

Statue of Liberty Lamp

From *Electrical Merchandising*, July, 1920

An electric novelty in the form of a miniature bronze Statue of Liberty equipped with an electric lamp and mounted on a base which holds two glass inkwells is being offered by the Electric Novelty Manufacturing Company, 152 Chambers Street, New York City. The statue can also be obtained in the form of a reading light with or without a clock. The reading light is equipped with a tungsten lamp, shade, cord and plug. It is for use on lighting circuits of 110 to 120 volts. The lamp and inkwell design stands 7 in. high; the reading lamp design, 16 to $18\frac{1}{2}$ in. high.



Amplifying Radio Transformer

From *Electrical Merchandising*, July, 1920

In the amplifying radio transformer, "Arco," developed by A. H. Corwin & Company, 4 West Park Street, Newark, N. J., the coils are wound on a laminated core with a ratio of four to fifteen. The direct current resistance of the primary and secondary is 1,000 ohms and 5,000 ohms respectively.

A simple mounting is provided, consisting of four binding posts mounted on strips of black bakelite, permitting the instrument to be mounted in horizontal or vertical positions. Primary and secondary leads are plainly marked. The weight of the instrument is 2 lb.



The switch is rated by the Underwriters at 10 amp., 250 volts.

Heavy-Duty Toggle Switch

From *Electrical Merchandising*, July, 1920

Harvey Hubbell, Inc., Bridgeport, Conn., has recently put on the market a heavy-duty toggle switch, No. 8102, of the surface type.

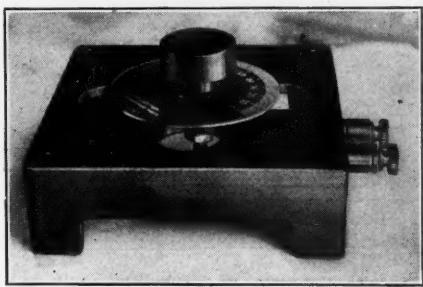
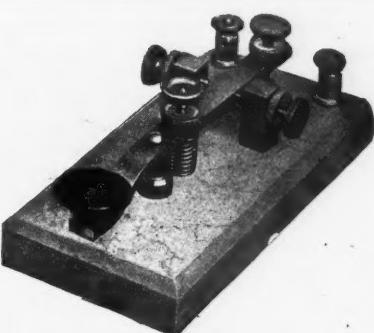
It has a round base, $2\frac{1}{2}$ in. in diameter, which can be furnished either slotted or solid and in composition or porcelain. A simple sturdy mechanism is employed, designed to make it prompt and positive in action.

Heavy Duty Transmitting KeyFrom *Electrical Merchandising*, July, 1920

A navy type radio transmitting key is one of the recent developments of the Eastern Precision Electrical Instrument Company, Rockville Center, N. Y., manufacturers of radio telegraph and telephone apparatus and parts for amateur and commercial requirements.

All metal parts of the key are of solid brass and bronze except the steel pivots at center bearings. Contacts are of hard silver and of extra large size. They can be supplied in sizes for 10, 20 or 30 amp., or larger. Keys are supplied on marble or on bases of other insulating material, 3 in. wide, 6 in. long and $\frac{1}{2}$ to $\frac{3}{4}$ in. thick.

The current is carried directly to binding posts and not through bearings.

**Rheostat for Wireless**From *Electrical Merchandising*, July, 1920

A radio rheostat 4 in. square, to be used either on a table or screwed to the back of a panel, is being manufactured by the Clapp-Eastham Company, Cambridge, Mass.

This rheostat is designed for providing a convenient variable resistance for wireless and other work. The rotary handle moves from zero to maximum resistance through an angle of 120 deg.

The rheostat may be either set on a table or screwed to the back of a switchboard panel with only the control handle and scale in front of the board. The complete instrument weighs $1\frac{1}{2}$ lb. It is supplied in sizes ranging from 12.5 ohms maximum resistance with 3 amp. maximum to 1,000 ohms with 0.3 amp. maximum.

Automobile Signal PointerFrom *Electrical Merchandising*, July, 1920

An electric automobile signal in the form of an arrow which, when attached to the rear of the car, points the direction in which the driver intends to turn is a device recently developed by the Hysig Company, Plainfield, N. J., and now being distributed by the Hart-Bell Company, Inc., of 1926 Broadway, New York City.

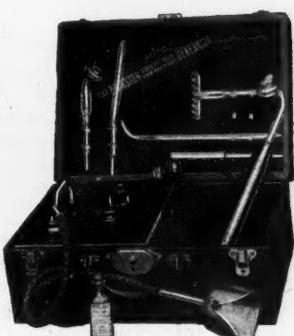
A similar arrow is provided for the front of the car, both being controlled simultaneously by moving a small switch lever attached to the steering wheel post. A buzzer pilot switch notifies the driver that the signal is pointing in the right direction. The rear signal is illuminated at night by a tail light. The arrow turns right, left and straight up, to indicate the intention of the driver to turn to the right, left or continue straight ahead.

The arrow is all metal, designed to be foolproof and weatherproof, and is visible at 300 ft. It requires no extra batteries, operating from any car battery, and is provided with a bracket for attachment either to the fender or center-rear.

**Spring Bowl Clamp**From *Electrical Merchandising*, July, 1920

A spring bowl clamp designed for attaching to a staple socket attachment has been brought out by the J. H. White Manufacturing Company, 111 North Third

Street, Brooklyn, N. Y. The clamp is intended for hanging glass bowls from the ceiling by means of chains. The inner curled edge fits under the rim of the bowl, holding it without the use of screws. The outer curl of the spring can be used to support a socket.

**Violet Ray Generator and Ozone Transformer**From *Electrical Merchandising*, July, 1920

A new model of combined violet ray high frequency generator and ozone transformer is being offered by the Charles A. Branston Company, 41 Ellicott Street, Buffalo, N. Y., manufacturers of electro-medical apparatus.

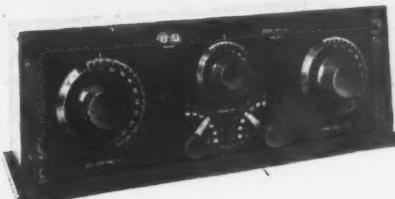
In this model, which is No. 25, the high-frequency coils are wound to produce a current of exceedingly high oscillation. The ozone attachment is provided with a glass reservoir for the solution of ozone oil, which filters the ozone and eliminates irritating gases. An inhaler covering nose and mouth is provided. The generator is mounted in a leather covered carrying case with nickel-plated trimmings.

Other models made by the same company combine high frequency and sinusoidal currents, high frequency, sinusoidal and ozone, and violet ray high frequency only.

Short-Wave Regenerative ReceiverFrom *Electrical Merchandising*, July, 1920

In the Type CR-3 short-wave regenerative receiver brought out by A. H. Grebe & Company, Richmond Hill, N. Y., the following requirements are met, according to the maker: A maximum selectivity is obtained by the use of a variometer for tuning the grid circuit, thus eliminating shunt and stray capacities. A high degree of amplification is accomplished by tuning the plate circuit with a second variometer. The comparatively small wave-length range (150 to 350) assures flexibility, inasmuch as the change in wave length approximates two meters per scale division. Rapid adjustment is made possible by the reduction to a minimum of the tuning elements.

As there are often occasions when it is necessary to tune to wave lengths including 600 meters, provision is made to change the wave-length range from 150-350 to 250-680 meters, by the addition of a small, low resistance mica condenser which is placed in shunt with the secondary circuit.



The specifications include a panel of bakelite-dilecto, quartered oak cabinet, metal parts of brass, and net weight of $12\frac{1}{2}$ lb.

Vacuum Cup Washing MachineFrom *Electrical Merchandising*, July, 1920

An electric washer that operates on the vacuum cup principle is being offered by the Tri-Plex Vacuum Electric Washing Machine Company, Inc., Pekin, Ill. The washer consists of a specially treated white cedar tub mounted on a stand. The round lid of the tub supports the vacuum cups and swings back at will.

In operation, the cups, filled with air, strike the wash horizontally. On the downward stroke the air and soap suds are forced down through the wash. At the completion of the stroke the cups tip and the released air bubbles up through the clothes to the surface. The cups have a downward, backward, upward movement. They strike alternately at regular intervals, causing the wash to rotate in the tub. The cups and swing-wringer are driven by a belt-connected General Electric motor.

Radio AmmeterFrom *Electrical Merchandising*, July, 1920

Under type T-A-W, the Roller-Smith Company, New York City, has put out a new radio ammeter for radio telegraph and radio telephone use. The manufacturers say the instrument is so designed that it can be used equally well on radio-frequency current, audio-frequency current and direct current, and that satisfactory performance and service is insured through its predominating characteristics of ruggedness of construction.



British Columbia Electrical Men Hold Co-operation Meeting at Vancouver

More than two hundred electrical men from all branches of the industry of the Canadian Northwest met at Vancouver, B. C., May 31 and June 1 in connection with the annual convention of the Vancouver Association of Electrical Contractors and Dealers.

Following an address of welcome by President E. Brettell, there were talks on merchandising topics by H. B. Kirkland, vice-president American Wiremold Company; M. K. Pike, general sales manager Northern Electric Company, Montreal; O. H. Caldwell, editor ELECTRICAL MERCHANDISING, New York, and W. L. Goodwin, General Electric Company, Schenectady, N. Y.

At the luncheon meeting William McNeill, assistant general manager Western Power Company, Vancouver, made an eloquent address on the problems of reconstruction now faced by the world, pointing out in particular that each period of war and strife has been a time for developing great men, and that, true to history, a corresponding crop of leaders is now in the making.

The afternoon session of Monday developed some interesting discussion of the shortcomings of the "contracting" basis of doing electrical construction work. As pointed out by several speakers, a job taken on the "contracting" basis is merely a guess and a gamble. The most successful firms are today handling most or all of their work on a "time and material" basis. This is the only basis, in the opinion of many of the speakers at the Vancouver meeting, which will give the customer the best service and the best installation of "quality electrical work."

The association banquet of Monday evening was enlivened by a remarkably clever amateur minstrel show put on by the Vancouver branch employees of the Northern Electric Company.

Following toasts by the association to the King, to ELECTRICAL MERCHANDISING, in recognition of its work for the electrical contractor-dealer, and to the National Association of Electrical Contractor-Dealers, W. L. Goodwin presented a number of charts, showing graphically the fundamental principles of electrical merchandising.

E. E. Walker, sales engineer of the British Columbia Electric Railway Company, Vancouver, opened Tuesday morning's session with a discussion of co-operation in the industry, and J. Lightbody, publicity manager of the same company, followed with a paper on "Co-operative Advertising."

"CONCERTED EFFORT OF ALL NEEDED," SAYS CENTRAL STATION MAN

"We must think of our business not in terms of mere articles or appliances, but as an idea, the electrical idea," declared Mr. Lightbody. "That is what we expect to get home to the public if we expect it to buy our goods. The business in electrical devices has to be created out of nothing. The electrical business is not ready made. You must make it for yourself. It requires, therefore, the utmost care in the correct merchandising of your goods. It requires the concerted efforts of all four branches of the industry!"

At luncheon Tuesday the electrical men sat down with the Rotary Club of Vancouver. Tuesday afternoon was given over to a boat ride to one of the power plants of the British Columbia Electric Company, as the guests of that company. In the evening there was a dinner and cabaret show given under the auspices of the Electric Club of

Vancouver, of which J. F. Little, Vancouver sales manager of the Northern Electric Company, is president.



Present methods of propelling golf balls may be all right, but A. H. Fleet, supply sales manager of the Cutler-Hammer Manufacturing Company, has a hunch for a portable pill cannon that will save a lot of wear and tear on the mashie, cleek and driver, not to mention the arms, legs and back. And, with the use of a little artillery dope it ought to cut down his score to, say, 17 for eighteen holes.

Montana Contractors and Dealers Organize

Electrical contractors and dealers of Montana held a meeting at Butte and formed an association that will be affiliated with the National Association of Electrical Contractors and Dealers. A constitution and by-laws were adopted and the following officers elected:

President, J. C. Curran of Helena; secretary-treasurer, E. Downing of Butte; board of directors, Joseph Olsen of Great Falls, Carl Miller of Kalispell, O. C. Langstadt of Butte and A. A. Nicholas of Billings.

After the meeting the electrical jobbers of Butte gave a banquet in honor of the newly formed association. The next meeting of the association will be held in Great Falls next October.

Florida Contractor-Dealers Organize

The Florida State Association of Electrical Contractors and Dealers was organized at the Athletic Club, Palatka, Fla., on May 7. W. H. Satchwell of Jacksonville was elected president and J. G. Spencer, Jr., of Palatka secretary. A constitution and by-laws were adopted.

Forty-one dealers were present, besides representatives of twenty-four jobbers and electric light companies. For purposes of organization, the State was divided into five districts and a vice-president will be selected from each district.



Co-operators of the Canadian Pacific Northwest—central station men, contractor-dealers, jobbers and manufacturers—all were represented at the Vancouver meeting of British Columbia electrical interests May 31 and June 1, with 200 electrical men present. Leaders in the local co-operative movement here shown are, from left to right: William L. Goodwin; J. F. Little, Vancouver sales manager Northern Electric Company; E. E. Walker, sales engineer British Columbia Electric Company; H. V. Rankin, Rankin & Cherrill, contractor-dealers, Vancouver; S. E. Jarvis, Vancouver; M. K. Pike, general sales manager Northern Electric Company, Montreal; H. B. Kirkland, vice-president American Wiremold Company, Hartford, Conn.; O. H. Caldwell, editor ELECTRICAL MERCHANDISING, New York; E. Brettell, Vancouver, president Vancouver association; C. H. E. Williams, Vancouver; W. W. Fraser, Vancouver, and R. G. Hargreaves, secretary of the Vancouver Electrical Association.



That Eighteenth Amendment has done some funny things. For instance, if a man misses the first wallop at a rattlesnake he wakes up in the place where folks line up for blocks behind the nearest ouija board in order to tell the folks here how it feels to be transparent. And if he kills the rattle he has to get a photograph to back up his story! Harvey Ball of the Ball Electric Company, Burley, Idaho, wasn't taking any chances, and he had Dick Chamberlain, Seattle district sales manager Hurley Machine Company, along to prove it.

The Milner-Flower Electric Company, jobbers and wholesalers of electrical appliances, Buffalo, New York, have opened a branch house at Ithaca, New York, operating along the same policy of "wholesale only."

The Shepherd-Whitson-Helms Company is a new electrical engineering firm, of Brooklyn, N. Y., having just incorporated for \$300,000. The incorporators are Thomas Whitson of Baltimore, Md., William Shepherd and Levi Helms, both of New York.

G. F. Kirkpatrick, manager of the appliance department of the Pacific States Electric Company of Seattle, has resigned the position to take up similar duties with the Electric Appliance Company, 1214 Third Avenue, Seattle.

The Morreau Company, Cleveland, Ohio, manufacturers of lighting fixtures, is issuing an attractive new catalog illustrating a few of its more distinctive types of "Qualiti-Lites."

The Erner Electric Company of Cleveland has placed its advertising in the hands of Frank B. Rae, Jr., and will immediately undertake an aggressive campaign to stimulate the sale of household appliances throughout northern Ohio. The Erner company is completing arrangements for greatly enlarging its facilities, details of which plans will shortly be made public.

Hammond N. Mann, formerly manager of the New York branch of the Premier Service Company, has resigned from this concern to become sales manager for Louis Kalischer, Inc., 288 Livingston Street, Brooklyn, N. Y.

Joseph E. Frechie & Company, Inc., of Philadelphia, jobbers of lighting glassware and fixture parts, have purchased the five-story building at 27 North Seventh Street, which will be their permanent headquarters. Joseph E. Frechie is president of the company; E. P. Greger, secretary, and Louis Hollander, treasurer.

Charles H. Champion of 347 Fifth Avenue, New York City, importer, exporter and manufacturer's representative, writes that a large English company, with a branch office in the United States, desires to be placed in touch with manufacturers of mechanical and electrical labor-saving appliances, with a view to their sale in the United Kingdom. The company is particularly interested in washing machines, dish washers, and the larger labor-saving devices, besides fixtures and automobile accessories.

The Pneuvac Company, the manufacturer of "the Electric Sweeper-Vac with Motor-Driven Brush," has acquired a new manufacturing plant, one of the largest in Worcester, Mass. The new plant has a floor space of 168,000 ft., or approximately 4 acres, and will be devoted exclusively to the manufacture of the one type of Sweeper-Vac, enabling the company to have an output of 1,500 machines daily.

Oscar Avery of the Avery-Loeb Electric Company, Columbus, Ohio, was

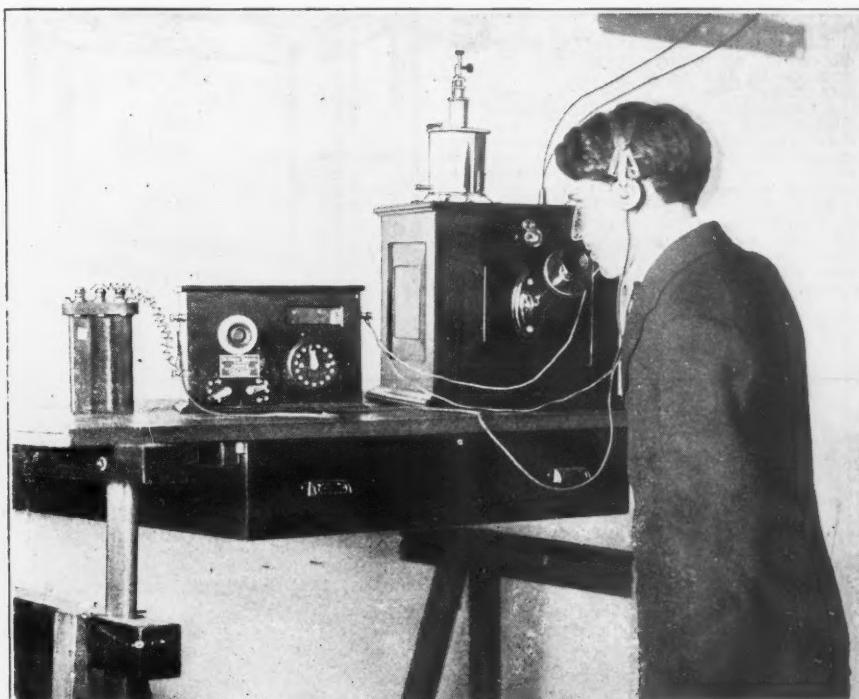
chosen chairman of the community conference at a meeting of the board of directors of the Columbus Manufacturers' and Jobbers' Association at a recent meeting. When the conference is organized it will invite to Columbus many of the retailers throughout Ohio and adjacent states.

The Pacent Electric Company of 150 Nassau Street, New York City, which manufactures and deals in radio apparatus, has established a precedent by instituting an advisory and consultation service for the benefit of electrical dealers and jobbers who handle wireless equipment. Louis Gerard Pacent, president and general manager of the company, is himself a radio expert and is vice-president of the Radio Club of America.

The Jefferson Glass Company of Foliansbee, W. Va., has ready for distribution an attractive and comprehensive catalog, containing fifty-seven full-page reproductions of the semi-indirect lighting bowls and reflectors made by the company. The Jefferson company specializes in illuminating glassware.

The Braun Company is the present name of the Coles Manufacturing Company, 1615 North Twenty-Third Street, Philadelphia, Pa., manufacturers of electric coffee mills, meat and food choppers. There will be no change in the personnel of the company and the Coles name will be retained as the trademark.

Amateur Interest Turning Toward Radio Telephony



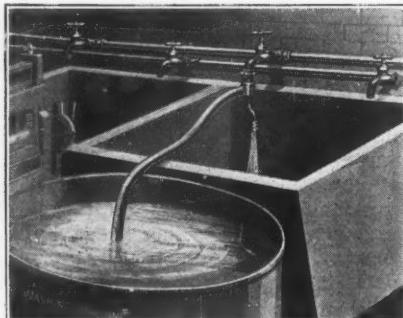
To-day it is quite possible for radio amateurs and experimenters to work with the radio telephone. This is a strong advantage and is good reason for interesting a great many people who would never have taken up this line of experimental work if it was necessary to learn the Morse code, because of the inherent difficulties in learning such a code to experiment on radio telephonie communication. It is quite a simple matter to install a radio telephone and it is not necessary to know a complicated method of signaling to gain the greatest advantages from such an installation. Radio phone enthusiasts are increasing rapidly and their apparatus needs are even greater than those of the earlier type of amateur interested only in the parts to make radio telegraphic equipment.

Washing Machine DrainerFrom *Electrical Merchandising*, July, 1920

In order that water from washing machine tube may be emptied without the necessity of lifting heavy pails of water and that the inconvenience of letting the water from the washer drain through the floor trap in the laundry floor may be eliminated, the Penberthy Injector Company, Detroit, Mich., has developed a washing machine drainer.

The drainer is attached to the water faucet, the sink or tub and is connected by a hose to the water in the washer. When the faucet is turned on the water pressure lifts the water from the washer and empties it into the sink or tub. The injector can also be used for refilling the washer by simply inserting a plug in the discharge end of the device.

The device is made of aluminum and contains no moving parts.

**Electric Washer with Gas Burner Attachment**From *Electrical Merchandising*, July, 1920

A new washing machine which operates on the rocking boiler principle is being offered by the recently organized Remmert Manufacturing Company of Soulard and DeKalb Streets, St. Louis, Mo. The new washer will be known as the "Airplane."

The machine consists of a boiler enclosed in an oblong cabinet. Directly underneath the boiler is the gas burner attachment, which keeps the water at the temperature desired. Thus, when the clothes are in the boiler and covered, they are boiled and at the same time cleaned by forceful water action caused by the eccentric drive which creates a rocking movement of the boiler.

Both boiler and heater are enclosed in the oblong cabinet, which is enameled and has a table top. The machine is also equipped with a swinging detachable wringer and a $\frac{1}{2}$ hp. quiet-running motor.

Zinc Bushings for Rigid Steel ConduitFrom *Electrical Merchandising*, July, 1920

Two bushings for rigid steel conduit, made of solid zinc and said to be rust-proof, have recently been put on the market under the trade names of "Bushettes"



and "Knurled Bushings." The advantage of using zinc, according to the maker, is that the bushings are die cast under pressure in steel molds and made in one operation, thus insuring uniformity of size.

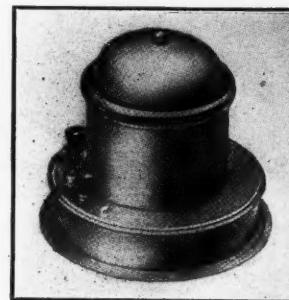
The aperture is smoothly surfaced and the threads line up with the shoulder, allowing the bushing to be screwed down tight and protecting the wire. The outer surface is knurled to fit pliers, making it easy to put on in tight places, and the bottom is flanged to cover up the hole in the outlet box. The application of these bushings requires only one operation, declares the maker.

The "Bushettes" are just like the "Knurled Bushings" except that they have a "knock-out" cap to keep out dirt during construction. When ready to pull wire, the cap is easily removed with a screw driver. The maker of these bushings is Walker Brothers & Haviland, Otis Building, Philadelphia.

Battery BellFrom *Electrical Merchandising*, July, 1920

Battery bells with $\frac{1}{2}$ -in. and 3-in. nickel-plated gongs, for use as portable calling devices, have been placed on the market by the Electric Signal Manufacturing Company, Inc., 31 Tremont Avenue, Orange, N. J.

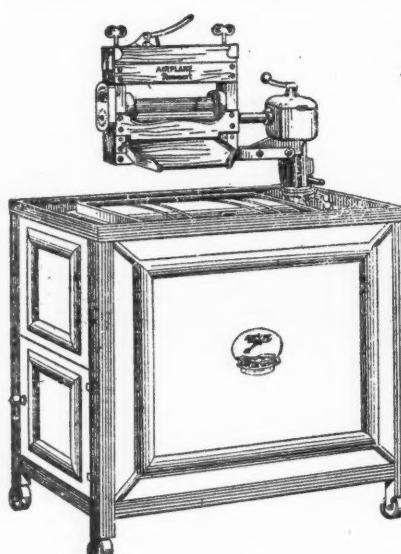
Two-cell and three-cell flat-type dry batteries are used with the equipment in the base.

**Socket Which Keeps Lamp Lighted After Switch Is Turned Off**From *Electrical Merchandising*, July, 1920

A new socket designed to keep a lamp lighted for from fifteen seconds to a half hour after the switch has been turned off has been developed by the Lite-a-Wile Socket Company, Minneapolis, Minn.

The socket depends for its operation on the thermostatic action of two pieces of metal wound with German silver wire. When the switch is turned on heating of the wire causes a contact to be made automatically. When the switch is turned off the action is reversed, and as the wire cools the contact points separate and the circuit is opened.

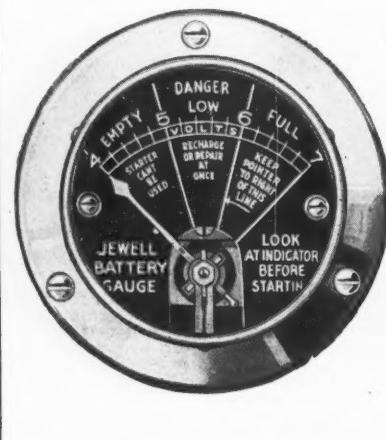
By means of a screw on the inside of the socket, which increases or decreases the gap between the two pieces of metal which form the contact, the period before the contact is broken may be varied from fifteen seconds to half an hour. Thus the device insures that the user is not in immediate total darkness after the switch is snapped off.

**Battery Gage**From *Electrical Merchandising*, July, 1920

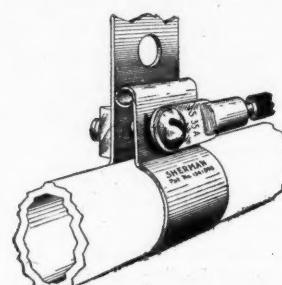
Many car owners use their starters until the battery is so low it will no longer turn the engine—a fact which has led to the development of the "Jewell" battery gage, manufactured by the Jewell Electric Instrument Company, Chicago, and distributed by the Mehan-McBroom Company, 1301 Michigan Boulevard, Chicago.

This gage is a voltmeter which gives the exact voltage of battery in figures and keeps up a continuous warning of approaching trouble. It shows discrepancy in the charging current and indicates short circuit or lack of water.

The dial of the gage is divided into three zones, the condition of the battery being indicated by the pointer working from right to left. The right zone is labeled "Full," the middle zone "Danger, Low" and the left zone "Empty." By watching this gage, the car owner can catch his battery in time either to put in water, have repairs made or find a partial short circuit.

**Ground Clamp**From *Electrical Merchandising*, July, 1920

In announcing the changes of design which have been made in its ground clamp to comply with the latest underwriters' requirements, the H. B. Sherman Manufacturing Company, Battle Creek, Mich., calls attention to the fact that the clamp is now equipped with a soldering lug, stamped with a rating identifying it as approved. Otherwise, the maker declares, the clamp retains the features which have made it well adapted for telephone, telegraph and signal lines as well as lighting and power circuits. It is all copper, one piece, and can be drawn tight with the aid of a screwdriver only.





Automobile Spot Lamp

From *Electrical Merchandising*, July, 1920

A spot lamp of the lighter type has been added to the line made by the Howe Lamp & Manufacturing Company of Chicago and will be known as model No. 17.

Like the other models of this company, the new lamp has a flexible control, flexible swivel joints and spring tension of the swivel joints, which the maker declares, automatically overcome the effect of wear and exposure to all kinds of weather. The focusing device permits the concentration of light into a long ray for spotting objects far distant.

Brass is the material used for the entire lamp except the bracket and clamp. Wires and switch are said to be waterproof, and a small rear-view mirror is provided if desired.

Washing Compound for Clothes and Dishwashing Machines

From *Electrical Merchandising*, July, 1920

A cleaning compound for use in electric clotheswashing and dishwashing machines is being offered by the Oakley Chemical Company of 22 Thames Street, New York City. This preparation, which is known as "Oakite," has been used heretofore in industrial work, but is now available to the general public for mechanical washing devices.

The compound is not a soap but a preparation for emulsifying grease and oil, breaking it into minute particles, which are quickly washed away by the action of the water. It cannot form a film on dishes, the maker declares, and has no harmful effect on the finest of fabrics.

Stand for Household Iron

From *Electrical Merchandising*, July, 1920

A corrugated steel stand to be attached to the end of an ironing board for holding household electric irons is being placed on the market by Mrs. Catherine V. Wilson, 2591 Broadway, Toledo, Ohio. The corrugations in the stand permit the heat transferred to the metal to be dissipated into the air, thus tending to prevent fires from overheated irons.

Ornamental Shower Plate

From *Electrical Merchandising*, July, 1920

A one-piece ornamental shower plate of circular design is being offered by the Artcraft Metal Stamping Corporation, 1022 Myrtle Avenue, Brooklyn, N. Y. The plate is made in unfinished and Flemish finished brass.

Self-Contained Refrigerating Unit

From *Electrical Merchandising*, July, 1920

A self-contained refrigerating unit designed for home use is being offered by the Balsa Refrigerator Corporation, 149 West Thirty-sixth Street, New York City, successor to the Frigidor Corporation, which carried on the experimental and development work. Under the development by the new company the machines are being installed in boxes insulated with Balsa wood.

The refrigerator is of the evaporation type and uses methyl chloride as a refrigerant. The cooling is by direct expansion; that is, there is no brine tank in the refrigerator. The compressor, driven by a 1/4-hp. motor, condenses the methyl chloride. This, by expanding in coils, in what is ordinarily the ice chamber of the refrigerator, takes up the heat in the box; that is, keeps the box cold. The methyl chloride then returns through the compressor to the condensing coils, the flow being controlled by an automatic valve. A current of air is used for cooling the condenser, which does away with the need of water connections. Only plugging into an electric-light socket is necessary for installation. The refrigerating unit is easily removed from the enclosed compartment beneath the food chambers. A thermostat control keeps the box at constant temperature.

The refrigerator, known as the "Frigidor," is offered in two sizes, having the same refrigerating mechanism built into standard household refrigeration boxes of 11 and 15 ft. cubic capacity. They may be supplied for direct or alternating current and the daily current consumption is about 2½ kw.-hr.



Candle Socket

From *Electrical Merchandising*, July, 1920

The Peerless Light Company, Washington Boulevard, Chicago, has recently developed its No. 3890 candle socket, made up of only seven parts, including the sealing wax.

No binding posts and screws are necessary to wire it, the manufacturer says, and no assembly of the socket is required. The E-Z wire socket has a plier-grip extension piece with a 1/8-in. thread at its base, designed to reduce the work of attaching.

The cylinder is made of highly insulative material, and the screw shell is standard with heavy porcelain base. The contact point is of hard copper with a spring to assure positive lamp contact.

Electric Fountain

From *Electrical Merchandising*, July, 1920

The fountain shown in the accompanying illustration has been placed on the market by the Jewel Electric & Manufacturing Company, 1833 Bertheau Avenue, Ravenswood, Chicago.

No water connection is needed for the fountain, as the same water is used over and over. A small universal motor, connected to a small centrifugal pump, circulates the water, drawing it from the basin and projecting it upward through small nozzles to a height of about 14 in., whence it falls over a luminous globe back into the basin. The fountain holds three quarts of water, about one quart a day evaporating into the air.

Both basin and spray ring are nickel plated and the container is made of spun metal hand-decorated over a polished base color of jet black and gray blue. The basin is 18 in. in diameter; spray ring, 11 in., with twenty-five nozzles; container, 32 in. high and 14 in. diameter at the base. No attention other than oiling is required for the fountain, the maker declares. The motor is said to operate noiselessly, so that the splash of the falling water is clearly heard.

Quenched Gap for Radio Equipment

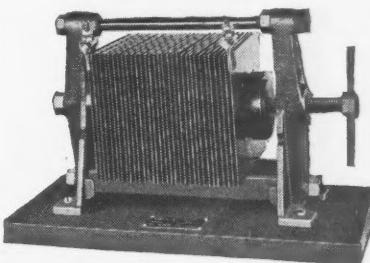
From *Electrical Merchandising*, July, 1920

The purpose of the quenched gap in connection with amateur radio transmitters, points out the American Radio & Research Corporation, 21 Park Row, New York City, is to shorten the transmitting wave and therefore make one station's signals less likely to interfere with another station's signals.

This company has recently developed a gap for amateur use, consisting of thirty-two specially treated copper disks, making sixteen sparking chambers, held in place by a rugged frame and insulated with bakelite. Air tightness is assured by a series of metal spacing rings which provide uniform pressure over the entire surfaces of the insulating gaskets. The gaskets are made from 0.040 degrees fish paper and treated with a compound made from beeswax and boiled

linseed oil. Two steel rods are supplied to aid in the easy assembly of the plates and insulating gaskets.

The gap is made in three types, 1 kw., 1/2 kw. and 1/4 kw. Specifications include weight of from 7 to 20 lb.; maximum power, 250 to 1,000 watts, and voltage, 7,500 to 20,000 up, according to type.

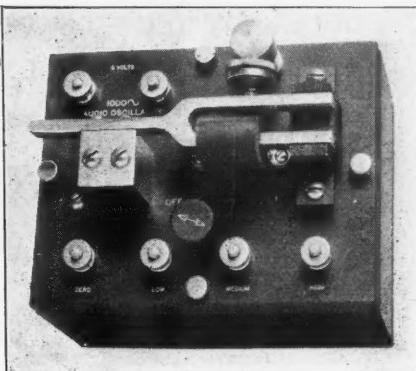


Constant-Frequency Radio Oscillator

From *Electrical Merchandising*, July, 1920

A radio oscillator designed to give a wave form free from harmonics and a constant frequency of 1,000 cycles has been developed by the General Radio Company, Cambridge, Mass. A vibrating fork magnetized with a field coil is used to keep the frequency constant. The output of the oscillator is said to be 0.06 watt. External posts are arranged to give three voltages, 0.5 volt, 1.5 volts and 5 volts. For higher voltages an inductance and capacitance are connected in series across the terminals.

The input current at 4 volts to 8 volts averages 0.13 amp.





Sh-sh-sh! Listen! Sam Furst (1), manager Kansas City Office, Bryan-Marsh Company, says that F. B. Uhrig (2), manager Western Electric Company, Kansas City office, told him that E. C. Armstrong (3), sales manager, specialty sales division, B-R Electric Company, heard F. L. Funsten (4), president Funsten Electric Company, say that Jack White (5) thought that William Morgan Hand (6), manager General Electric Company, Kansas City, mentioned to A. J. Selzer (7), sales manager B-R Electric Company, that there was no doubt about H. A. White (8), Kellogg Switchboard Company, telling H. A. Esler (9), Missouri Valley Electric Company, that this is an authentic, hitherto unpublished photograph of the electrical end of the "Heart of America" special, the Kansas City Chamber of Commerce booster train through Kansas and Oklahoma. In one week these indefatigable boosters made sixty-eight towns.

The Reflector & Illuminating Company, 565 West Washington Street, Chicago, has purchased and taken over from Frederick A. Watkins, manufacturers' sales agent, that part of his business constituting the sales agency for reflectors manufactured by the Pittsburgh Reflector & Illuminating Company, Pittsburgh, Pa.

Willard S. Sisson, who has been secretary and treasurer of the D. & W. Fuse Company, Providence, R. I., severed his connection with the D. & W. Works on June 15, as the plant is now operated by the General Electric Company under a long-term lease. Mr. Sisson will continue in the electrical business and will announce his plans in the near future.

The Appliance Distributing Corporation, 673 Eighth Avenue, New York City, has been appointed distributing agent for the Easy Vacuum washing machine, the Walker dish-washer, and the American cleaner, in the metropolitan district of New York City. W. L. Heffner, formerly general sales manager of the Livingston Sales Corporation, New York City, will have charge of sales for the Appliance Distributing Corporation.

The Laundryette Manufacturing Company, 1190 East 152nd Street, Cleveland, Ohio, has under construction a two-story addition to its present plant. The addition measures 80 ft. x 140 ft. and is expected to double the production of Laun-Dry-Ette washing machines.

Who Really Caught the Fish and Who Merely Smiled for the Photographer?



With the advance of science in all other lines, the photographic "fish story" has now become the proper thing. Some embarrassment, however, has been caused in the office of ELECTRICAL MERCHANDISING by the discovery that in these two groups of handsome electrical fisherman snapshotted at Del Monte, Cal., the fish figuring in the photographs are identical. To aid readers in drawing their own conclusions as to who really made the funny catch, we submit names and addresses as follows: Left group: A. E. Legge, Public Service Company, of Northern Illinois; Chicago; R. P. Tillotson, Appleton Electric Company, Chicago; J. J.



Keith, advertising manager Altorfer Brothers Company, Peoria, Ill.; R. E. Garton, Packard Lamp Company, Warren, Ohio; C. A. Harding, Commonwealth Edison Company, Chicago; W. F. Bissell, F. Bissell Company, Toledo; L. W. Kittman, Jobbers' Association, Chicago. Right group: R. P. Oblinger, Indiana Electrical Supply Company, Indianapolis; James Clark, Jr., J. Clark, Jr., Electric Company, Louisville; H. E. Rasmussen, Indiana Electrical Supply Company; C. J. Litscher, C. J. Litscher Electric Company, Grand Rapids; B. B. Downs, St. Paul Electric Company, and J. O. Weatherbie, General Electric Company.

New Stores

Preston & Bishop, Inc., of Holyoke, Mass., has organized to operate a general contracting-dealing business. The firm was formerly a partnership, at 237 Maple Street, Holyoke. The officers of the new incorporation are E. T. Preston, president; E. S. Bishop, treasurer; and M. J. Preston, secretary.

The Electric Service Company is a new concern in Waynesburg, Pa., which will occupy the building formerly occupied by the Greene County Telephone and Telegraph Company, Washington and Franklin Streets, Waynesburg. The proprietors of the new store are Will Blatchley, formerly general manager of the South Penn Telephone and Telegraph Company, and J. H. Fritz, who was formerly wire chief of the same company.

The American Public Service Company of Dallas, Tex., which is going into the merchandising field strongly, is opening stores in the following towns in Oklahoma and Texas: Henrietta and Hugo, Okla.; Jefferson, Longview, Cisco, Baird, Abiline, Merkle, Stamford, Hanson, Marshall and Homlin, Tex.

The Otto Electric Company has been organized at Fort Worth, Tex., by E. A. Toombs, E. L. Toombs and J. M. Thompson, to do a general electrical supply and contracting business. The capitalization is \$35,000.

The Nunn Electric Company of Dallas and Amarillo, Tex., has taken a twenty-year lease on the two-story building at 1618 Main Street, Dallas, and will move into the new building as soon as extensive repairs and remodeling can be finished. A passenger elevator will be installed and the second floor will be fitted up as one of the most complete display rooms for electrical goods in Texas. Dr. J. E. Nunn of Amarillo is president of the company. J. L. Nunn is manager for the Dallas branch. The twenty-year lease calls for rentals amounting to \$150,000.

